# Journal of Home Economics

VOLUME 36 NUMBER 3

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DETROIT

Footwear in 1944
*William Giddon*

Home-Room Question Box
*Fern Russell*

Spoilage of Canned Foods in Iowa
*P. Mabel Nelson*

Community Canning Centers
*Esther H. Scott*

The Influence of Venting on Pressure Cooker Performance
*William B. Esselen, Jr.*

Ascorbic Acid Losses in Cooked Vegetables
*Mamie G. Ireson* and *Mary S. Eheart*

*March 1944*

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AMERICAN HOME ECONOMICS ASSOCIATION
WASHINGTON, D. C.

# *In Our Next Issue . . . . . .*

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of the Bureau of Home Economics with girls at the University of Nebraska revealed "a number of things," as RUTH LEVERTON and THELMA MCMILLAN will show.

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at the Ohio State University, evolved from years of guidance research, has resulted in revised curricula and improved teaching as well as in greatly increased services to the students. RUTH LEHMAN, WINONA MORGAN, and DOROTHY SCOTT will tell about it.

NUTRITION WORK IN SOUTH AMERICA

as seen and participated in by two women from the USA will be described. AGNES JUNE LEITH will tell of pioneering work in Brazil; LENA MAY HOERNER, of truly thrilling activities in Uruguay.

THE GUINEA PIG COUNTY CALLED CLAY

in which 92 valley farm families were uprooted to make way for TVA's Chatuge Reservoir, posed a major problem for USDA extension workers. VELMA BEAM will tell what was accomplished in this needy Tarheel county.

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in high school is more than ever needed today, MAY VAN DEUSEN points out in the report which she will make on the method she worked out for such teaching.

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by home economists who are blazing new trails or smoothing old ones.

**36th Annual Meeting, American Home Economics Association**

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# *Simple Rules for Washing Rayons*

Under wartime problems, the subject of "home washing" takes on new importance for the home economics student.

*The First Step* to successful home laundry is to make sure the fabric is *really* washable . . . avoiding the common mistake of attempting to wash a fabric that merely *looks* washable. The best way to know about the washability of a garment or fabric is to get complete and accurate information when you buy it. To do this, look for an informative label, stating that the fabric has passed scientific washing tests. A washable fabric, these days, doesn't have to be a humble "housedress" fabric – there are many smart rayons for school and dress wear that bear labels indicating that they may be safely washed.

*The Second Step* is to know *how* the fabric should be handled in washing. Some fabrics should always be washed by hand methods, others may be washed in a washing machine. Good informative labels on rayon fabrics should indicate for which method of laundering the fabric has been approved. When rayon fabrics are tested in the laboratory, those to be designated as WASHABLE are tubbed by machine in laundry soap and hot water. Fabrics to be designated as HAND WASHABLE are washed by hand in mild soap and lukewarm water. It is essential that your students realize the importance of distinguishing between these two methods of laundering and that they read labels carefully for washing instructions.

**HAND WASHING:**

1. Use lukewarm water (not over 105° F.) Make plenty of suds with a mild soap.
2. Do not bleach—a bleach is unnecessary for rayons.
3. Squeeze suds through and through the soiled parts. Two quick sudsings are better than one long soaking.
4. Rinse thoroughly in lukewarm water.
5. Wring or squeeze water out by hand.
6. Dry away from sunlight or direct heat.

**MACHINE WASHING:**

1. Use plenty of soft, hot water (not over 160° F.) and laundry soapsuds in your machine.
2. Rinse thoroughly and quickly.
3. Do not use a bleach—a bleach is unnecessary for rayons.
4. Dry away from sunlight or direct heat.


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# The Basic Function of Vitamin C

Man's battle against scurvy antedates the science of nutrition by many years. A study of primitive food customs reveals continuous search for the essential dietary element we now know as vitamin C. The Algonquin Indians, for example, found it in the eyes and glandular organs of game and thought of "deer eyes" as a powerful medicine.

Of course, none of these primitive people understood the biochemical significance of the antiscorbutic vitamin. Today, the science of nutrition has given us a clear picture of what happens when the diet is lacking in vitamin C.

Basically, vitamin C functions in producing *collagen*—the intercellular cement substance that holds the individual cells of the body together. The anti-infective value of vitamin C, therefore, hinges upon this basic function—that of maintaining the integrity of the tissues of the body. When vitamin C is lacking, scurvy sets in with all its classic symptoms: hemorrhages of the gums, easy bleeding, loosening of teeth—all permitting easier access to bacterial invasion.

This same function underlies the value of vitamin C in promoting the rapid healing of wounds, particularly those occasioned by surgery. Laboratory tests confirm the clinical observation that wounds of scorbutic subjects are difficult to heal and that rapid healing, through adequate *collagen* growth, can be promoted by holding the patient's vitamin C metabolism at a high level.

**Oranges are our most practical source of vitamin C**

Nutritionally, all oranges are a good source of vitamin C. But there is a difference in the value of the juice of oranges grown in different parts of the country. Here are the findings on vitamin C, from a report by the Bureau of Home Economics, U. S. Department of Agriculture:

**VITAMIN C (Ascorbic Acid)**

| Test Material | No. of Samples* | Ascorbic Acid per 100 Ml's. | | |
|---|---|---|---|---|
| | | Hi. | Low | Av. |
| | | | Mgs. | |
| ORANGES—California Navel | 15 | 68 | 50 | 58 |
| ORANGES—X variety† | 7 | 53 | 38 | 45 |

*6 tests per sample.

†Represents largest percentage of oranges from other producing area.

In addition, California Oranges are a good source of vitamin A and supply valuable amounts of vitamins $B_1$, $B_2$ (G); calcium and other needed minerals.

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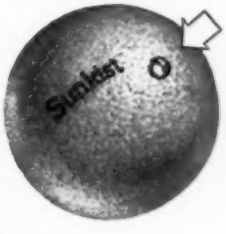


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# *Washington News . . .*

• AHEA's clothing & textiles survey, plus its growing exhibit of poor-quality articles & sleazy, high-priced yard goods (see our Feb. Washington News) continues to attract attention. Among those asking reports on both: Senator Truman (for his investigation committee), U. S. Chamber of Commerce, Natl. Retail Dry Goods Assoc., Consumers' Union, CIO, Underwear Institute, OWI, OPA, OCR.

WPB's Nelson suggested the collection. Only contributions so far (but good ones): samples of cotton prints bought by students of a Conn. junior high class; shoes, slips, cap, pajama top, yard goods samples sent by N. J. extension women; shoes, percales from Washington, D. C. Will home economists from other states please send similar contributions with data as to price, date, store, city in which bought? . . . Textiles & clothing chairmen of state home economics associations will launch follow-up survey March 15.

• On Feb. 28, 8 members of the AHEA filed into the Agricultural Appropriations Committee room in the House wing of the Capitol, Jessie W. Harris at their head, to present the case for making increased funds for the Bureau of Human Nutrition & Home Economics. Other groups joining in making the plea: AAUW, American Dietetic Association, American Federation of Teachers, General Federation of Women's Clubs, Natl. Service Star Legion, Natl. Council of Jewish Women, Women's Natl. Homeopathic Medical Fraternity. To prepare the soil for the hearing, home economists in the 5 states represented by the House committee members had written their Congressmen some weeks before on behalf of the Bureau.

• One home economics student club worker from each state is being invited to meet in Chicago March 18 to 21 to plan better national club program, handbook for clubs, Congress of Home Economics Youth in Chicago in June during AHEA convention. Committee named by AHEA executive committee to arrange meeting: Mrs. Lewis & Misses Bailey, Amidon, Waite, Wyckoff.

• Two school lunch bills now vie for support: one sponsored by Senator Robert Wagner, asking $80 million annually for program to be administered as it is now by USDA, the other drafted by U. S. Office of Education asking $50 million (same sum as allocated for 1943–44) for program to be run by state education officers & local boards of education. Of 230,000 schools in USA, about 60,000 serve lunches, half with WFA aid.

• "WPB should order all shoe manufacturers to have unbuffed, oil-treated soles for wartime shoes, as trade journals say such production methods would lengthen shoe life 24 to 34%." So declared women of 7 organizations in a hearing before the subcommittee on war mobilization of the Senate Committee on Military Affairs, Feb. 8. The 7: AAUW, AHEA, Natl. Council of Jewish Women, Natl. Federation of Settlements, League of Women Shoppers, Natl. Council of Negro Women, Consumers' Union. They pointed out: decline in shoe wearing quality is estimated by OPA as meaning about a 42% price increase; if today's low quality goes on, 5 or 6 pairs of shoes a year will be needed instead of rationed 2, but supplies are inadequate for so many; putting out shoes with unbuffed, oil-treated soles would make double production unnecessary.

• Brooms at $1 or $1.50 and probably hard to find are in the offing. Chief causes: small crop of U. S. broom corn, small imports of fibers. . . . Girdle outlook darker; Army suddenly stepped up orders for Neoprene, synthetic rubber that corset makers had succeeded in adapting to their use; now they must start over again with Buna-S. . . . Feb. 17 OPA issued several orders which drastically cut the amounts of cotton, rayon piece goods given expensive finishes. Result predicted: return of lower-priced lines of dresses & other goods. . . . New OPA orders should mean by April near normal supplies of 64 x 64 thread-count sheets, sheeting, and pillowcases (most popular with low-income consumers) at March '42 prices.

Journal of Home Economics

Vol. 36, No. 3
March 1944

# Footwear in 1944

WILLIAM GIDDON

*After receiving his engineering degree from the Massachusetts Institute of Technology and working several years as an engineer, Mr. Giddon went into the shoe merchandising field. He is now manager of the shoe department of L. Bamberger and Company in Newark, New Jersey, and its buyer of women's shoes.*

ONE year has now passed in which shoes have been the only rationed apparel item, and the consumer—with more than passing interest and critical eye—is asking if in the year to come the industry will provide pleasing, protective footwear, satisfactory both as to quality and quantity.

### Will Shoes Be Attractive?

Pleasing footwear, to most women, means pretty, dressy shoes for social occasions and well-styled, practical models for working hours. Do present regulations as to color, material, and styles permit making this "pleasing" footwear?

The answer depends upon the individual woman and her tastes, of course. Restrictions as to color are more sweeping than those for material and styles. Leather shoes in reds and greens or in white trimmed with black or brown will be "needles in the haystack." Reds and greens will be found in the ration-free shoes, of course—those made of noncritical materials. The all-white shoe last year replaced the two-toned favorite—and met with general acceptance.

Patent leather will pinch-hit for whatever blues are unavailable. Shoes will be black, white, one tone of brown, and one tone of tan. These basic shoe colors will look good with the apparel colors now in vogue and should work no hardship on the wearer.

Restrictions as to material are virtually nil; only white leathers of bovine origin are prohibited. We can still have gleaming patent leather, polished calfskins, soft suedes, genuine or simulated reptile, rich kidskins, and beautiful gabardines.

Although many style details have been out for more than a year, shoes have not been reduced to standardized utility models. Shoes which are simple but rich in appearance have come in. The great number of styles, silhouettes, and lasts among the frozen styles make boredom unlikely; there is still wide range of choice among the different dealers, brands, and price levels. Separate bows and ornaments provide novel treatments.

### Will They Fit and Be Comfortable?

The basic function of shoes is to protect the foot, and this function is still being served by the shoes of 1944. The same highly mechanized and efficient factories are still turning out the same wide range of lasts and of good fitting patterns with heel heights from 2⅝ inches down.

But many of the clerks at the fitting stool are new, and there is more than ever need for the customer to select her shoes with care. Though fit and comfort are as possible of

attainment as ever, there will be men and women in 1944 (as in prewar years) saying, "My feet are killing me!"

**Shall We Have Enough Shoes?**

Will there be enough shoes? An unequivocal answer is difficult to frame, for the quantity situation is affected by many forces of varying intensity.

Rationing can only divide equitably that which can be produced from available materials and manpower. Demand naturally is higher in a busy economy than in a slack one. Shoes are getting harder wear than usual; therefore, the backlog in the individual's wardrobe closet is reduced. Yet one sign would seem to indicate that consumers have an adequate home inventory: the way they are using their shoe rationing coupons. The June 1943 stampede to buy shoes before coupon number 17 expired certainly implied that the shoes were not sorely needed—otherwise the coupon would have been used earlier. The unlimited dating of coupon number 18 has prevented a repetition of that stampede. The recent slackening of retail sales and lack of general desire to part with either the old number 18 coupon or the new airplane number 1 are also significant.

Raw material inventories, however, are at low levels and manpower is difficult to maintain; hand-to-mouth deliveries also cause delays in output. On ranges, the record size of herds hasn't meant an increase in the supply of hides, as cattle have not been slaughtered for the leathers. Although the supply of ships has increased and shipping has again become relatively safe, there has been no increase in imports because of allocation agreements. On the production side, then, we shall be "scraping the bottom of the barrel."

**Military and Foreign Relief Needs**

In 1943 military needs amounted to about 10 per cent of production. Military requirements in 1944 may be reduced if the European phase of the war is successfully ended during the year. But demands of liberated areas will draw heavily upon our stocks and production facilities, even if those demands are simplified by standardization.

Per capita figures tell the story: Production of shoes for civilians in 1941 was 3.6 pairs per person; in 1943, 3 pairs, including 0.6 pairs of the slipper and nonrationed types, production of which increased markedly during the year; and the ending rate of 1943, about 2 pairs of rationed types of shoes per person, which is the present rationing rate. The situation is tight, but there need be no fear that the bare-leg fashion of last summer will be accompanied this year by bare feet.

**What About Quality?**

It is difficult to answer the question as to quality. As incomes have increased, quality buying has been stimulated. Production of lower-priced goods has been discouraged by narrower dollar margins under price ceiling regulations. And finally, the fact that rationing of shoes was set up by unit of purchase, not by price, has also focused interest on the better shoes.

Manufacturers of the so-called better shoes have neither the materials nor the production capacity with which to meet this demand. In order to counteract these inflationary tendencies and to keep all grades of materials in use in normal proportions, the government has set production quotas for each six-month period for each maker and has frozen him in his normal price range.

Intrinsically (in terms of wear) there has been some depreciation in quality. It varies from one factory to another within a given price level, depending upon relations with sources of supplies, aggressiveness of purchasing agents, and proximity to the markets—and there is also variation within a single factory at different times of the year. Some of the top-flight shoemakers, who normally purchase top grades of materials, may come nearer than the others to traditional quality standards. The need for timing delivery to retailers may make some shoemakers feel that compromising somewhat on quality is practical, instead of waiting to get better materials.

Nonavailability of materials and labor, WPB regulations, and priority of military needs are basic causes of unavoidable depreciation—a depreciation which not always affects the wearing quality of shoes. Elimination of nonfunctional stitching and replacement of leather bows with fabric ornaments to conform with WPB orders, for example, do not affect wear.

**Specific Points of Quality Depreciation**

To be specific as to quality depreciation:

Sorting of leathers seems to be less selective than in prewar years. Cutting and finishing are not always up to the old standards. The kinds of leathers considered most suited for certain types of shoes are often not available in sufficient quantities or at the right time; therefore second choice (but still good) leathers are accepted.

Elasticized materials and bindings—which in many lines have been a quality detail and which primarily affect fit—are not available. Fiber counters have displaced leather counters in some lines—a change which may be questioned, although their use is not new. The preferred processes for making fine shoes have had to be abandoned by some factories because of the sole leather problem. Reclaimed rubber or plastic soles must be used for "loafers" and low-heeled moccasin styles. The reclaimed rubber soles wear well but mark floors and rugs. The plastic ones are being produced in limited quantities for selected models by some makers and are proving highly satisfactory under wear tests, but priorities prevent their being widely used. After the war such soles may have a legitimate role.

The desired qualities and thicknesses of sole leather are not available in amounts that are adequate for maintenance of peacetime standards, especially in men's shoes. Serious loss in wear or in satisfaction has not necessarily resulted, however, as many peacetime standards were based upon an economy of abundance.

Nonrationed footwear—which uses cloth for uppers and plastic or some other substitute for soles—permits consumers to supplement rationed shoes and to get colors not otherwise available. Soles must pass WPB minimum wearability tests: for resistance to abrasives and to water absorption and for flexing strength.

**Extent of Depreciation**

How far has the depreciation gone? My guess is that in individual shoes in 1944 it will vary from no loss in quality to a 20 per cent loss and that the over-all average will be about a 10 per cent reduction in wearing satisfaction.

With the involuntary depreciation have come some compensatory savings. Style freezing and some other federal regulations have decreased some costs. But many production costs have risen, while the rationed footwear has remained at frozen price levels. Shoe prices are usually averaged prices and have minor regard for differences in material and in intricacy of pattern.

**Consumer Outlook in Brief**

In 1944 the shopper will be able to buy shoes that are good-looking, fit well, and have good qualities in relation to price, but the quantity of these shoes will be limited. The shoe preferred by a given customer may not be in the shop at the desired time or in the right size. As the retailer now receives monthly deliveries and the consumer still buys seasonally, there are times when the retailer is able to build up a fairly good inventory.

Our advice to consumers is to buy carefully in relation to what is already in the shoe closet and to when and where and with what the shoes are to be worn. Practices which will increase satisfaction are treeing, polishing, putting the shoes on with a shoehorn, protecting them against wet weather, and replacing heel top lifts promptly.

# *Home-Room Question Box*

FERN RUSSELL

*Miss Russell has taught home economics in the De Land (Florida) senior high school for 19 years and now is state home economics club counselor. Her experience also includes a year as dietitian in a Florida college and work in public health education.*

IT was October 1942. A Navy air base was to be stationed in our town. The news got around quickly, and people were excited. Camps were being placed in almost every town. Florida was becoming an important center for the armed forces!

**Boy Meets Girl**

Then stories drifted in of girl-sailor problems that the high schools were having and of tragic happenings in many towns, especially with girls of junior high school age.

Some of these stories may have been false or greatly exaggerated, but there was sufficient foundation of truth that the ministerial association became concerned and met with the school board to determine the best thing to do. They decided to organize discussion groups among the girls of the seventh, eighth, and ninth grades, using the home-room group as the unit of organization. I was asked to be the counselor of these groups and was released from other duties in order that I might have time for the work.

The girls came the first day with wide, curious eyes which seemed to ask, "What are you going to do with us?" Only a few minutes of explanation were needed to bring out the girls' interest and co-operation—and enthusiasm. Their questions and problems came so fast thereafter that it was baffling at times to know how to answer them. Never was there a dull moment in any of these discussion groups, and the big problem was to get enough time for group discussion. Girls often came also for private conferences.

**"What's Venereal Disease?"**

As the health department and the school board were eager that the girls be given information on the dangers of venereal disease, this was one of our first topics for discussion. Many of the girls had never heard of venereal disease and asked numerous questions.

By this time the air base was completed; the girls and sailors were becoming well acquainted and the personal problems, more complex. Attitudes of parents toward their daughters' friendships with the sailors varied widely. Some parents permitted the girls to date freely; others allowed no meetings at all with boys in the service.

Sometimes the girls given the most freedom were the most bewildered as they had full responsibility for decisions. Many times these girls had to be guided into a more mature way of thinking than they would ordinarily have had at that age.

**The Case of Mary**

Some of the problems were very complex, and sometimes neither group discussion nor personal conference led to wise decisions. Mary brought one of the first of such problems. She was a lovely girl of 14 and an excellent student but had been absent from school for several weeks. When I telephoned her she said she had been wanting to talk with me, and we arranged to meet that day.

She had fallen deeply in love with a boy stationed at the Navy base and was to have married him a few days before. As he was not old enough to get a marriage license he had changed his age on his identification cards, the deception had been discovered, and he was placed "in the brig."

Mary admitted that he had been using another name when she first met him and had

only recently told her his true name. Though she had misgivings as to his character, her infatuation was so great that she had decided to marry him in spite of everything. Her mother had consented to her marriage, for she had no real home for the girl.

Mary asked me to find out what I could about the boy, as she wanted to know the worst. From the Navy personnel director, I learned that he was a constant troublemaker and had committed some grave offenses, for which the Navy had considered giving him a dishonorable discharge. Counties of that section had been notified not to grant him a marriage license.

Mary came back to school and for a time seemed happy. But soon we heard that she had left for a distant city to marry the sailor. Later we learned that she did not live with him long and was having to earn her own living.

All the girls knew and discussed among themselves Mary's problem and her final decision and they learned much from her mistakes; later decisions by the members of the group were more wisely made.

**Jane, Aged 15**

Jane's mother had rented rooms to a young sailor and his wife, both of whom became good friends of the family. Then they started to bring home from the base young men around 22 years old for 15-year-old Jane to date. The two couples would go out together and have a lot of fun; therefore Jane couldn't understand why her mother objected.

Group discussion revealed that Jane was losing interest in school parties and activities. After the other girls expressed their ideas, Jane realized that she was missing a great deal of fun with her own age-group and that her mother was right in saying that dating the sailors was making her "grow old too soon."

**Question Box**

The question box is the device used for launching the group discussions. Each girl puts into the box one question or a statement of one problem. Though these questions are unsigned, the girls evidently have no self-consciousness about them for they usually say, "That's my question," and proceed to discuss the situation. Group discussions have helped the girls to face, not evade, problems and to consider all sides before making decisions.

**The Conventions, Sex Education**

The discussions have also given the girls more respect for certain conventions. A teacher one day saw one of our girls accepting money from a sailor on the street and reported the incident to me. The girl had never considered what such a "gift" might mean or how it might be interpreted by passers-by.

Discussions have stimulated considerable interest in sex education and have led to our ordering the best books on that subject suited to junior high school girls. The girls may go from study halls and physical education classes to the living room of the home economics department to read the books. And at almost any time of day, some girl can be found curled up on the divan reading them.

Personality development, vocational guidance problems, home living situations, school parties, as well as behaviour problems receive attention in our discussions.

Eighth grade girls at one time complained that they never had fun at parties because the boys would only sit and pout if the girls wouldn't play kissing games. We found that the parties were private affairs planned by individual girls and poorly if at all chaperoned. As these girls had made few plans for the parties, the boys then made suggestions—which did not always meet the approval of the girls. Class discussion led to investigation of how the senior high school girls and boys ran their parties and to improved planning for eighth grade affairs.

Certainly the discussion group has proved for us an excellent way to handle many of the difficulties of a war area.

# *Soya Products Distribution*

BETTY G. LEAMING

*Miss Leaming is associate technologist in the soya products section of the War Food Administration. She has taught home economics and has had various positions in business and the USDA.*

THE soya story continues to be one of progress. Production of soya flour, soya grits, pancake and waffle mixes containing soya, and other soya foods is booming. Retail distribution is spreading rapidly. Sales records show that consumption is increasing.

The nutritionist's wish for greater availability and utilization of soya's high-quality protein is moving along swiftly toward fulfillment, but there is still much to be done. Distribution could be much heavier, especially in some southern areas where protein deficiencies exist partly because of lack of nutritional knowledge and partly because of lack of sufficient funds to purchase available high-quality protein foods.

**The Flour and Grits**

The basic soya products—that is, the soya flour and grits—are new foods, the first new staple foods produced in this country in abundance for decades. They are new in a sense far different from the so-called "new" foods which are really new combinations of old foods. And they are at last available. Now remains the task of spreading information as to their nutritional values and physical characteristics.

Soya flour and grits are now retailed in package sizes suitable for home and institutional use. The map shows that coverage is rather spotty, but this spottiness will disappear as demand mounts. Soya flour and grits contain 40 to 50 per cent of high-quality protein and are made from field soybeans. More of these products probably will be available on the retail market than dry whole soybeans, as their milder flavor encourages use of them in a wider variety of recipes.

**Food Products Containing Soya**

Many manufacturers are now retailing ready-to-prepare and ready-to-serve foods containing either soya flour or grits. The pancake, waffle, and muffin mixes containing soya are in nation-wide distribution. Those represented on the second map have from 10 to 20 per cent soya flour or grits.

Wider utilization of soya in bakery breads—and consequent increase in their nutritive value—will depend on consumer reaction which, in turn, depends on consumer knowledge.

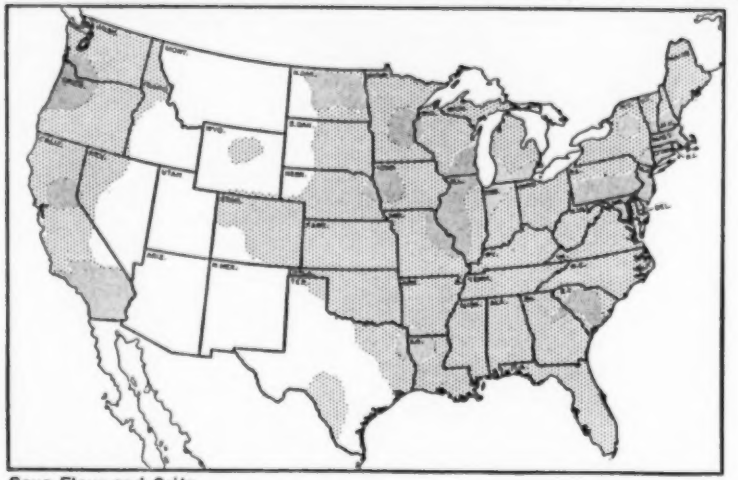
Interest in macaroni, spaghetti, noodles, and such products containing soya is stepping up. One company reports that though it now distributes only in a few states, requests for its products are coming in from all over the nation. As macaroni has an established spot in the diets of all income groups, soya in macaroni has great nutritional possibilities.

These paste foods containing soya are rich in color, slightly firmer and chewier in texture than those without soya. Taste difference is small and is pleasing to most people.

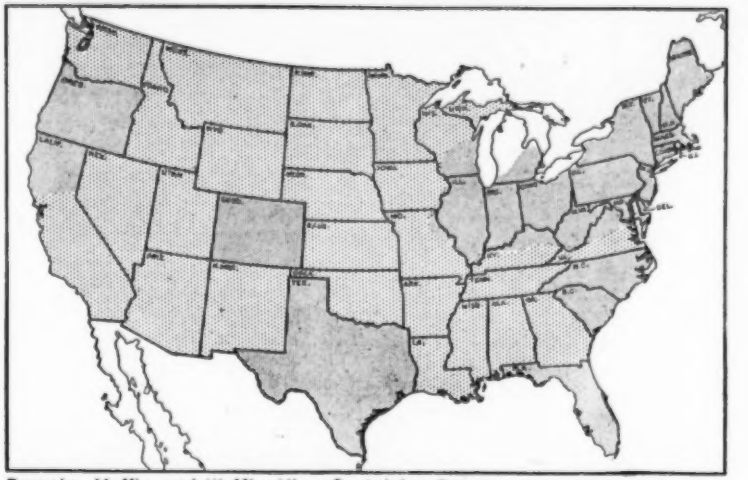
Many other products containing soya are now marketed, as soup powders, crackers, and breakfast cereals. A list giving products containing soya, manufacturers, percentage of soya used, and distribution areas has been compiled by the Grain Products Branch, Food Distribution Administration, and copies will be distributed while the supply lasts.

Now that so many soya products are available, an intense community education program is in order, to acquaint homemakers, restaurant operators, and institution managers with the many ways to use soya in the preparation of delicious foods.

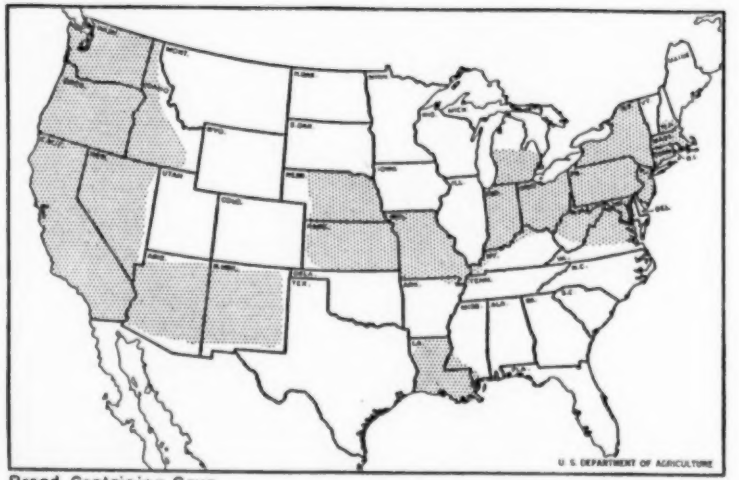
Distribution of soya products in December 1943, the darker shading indicating the more intensive distribution.



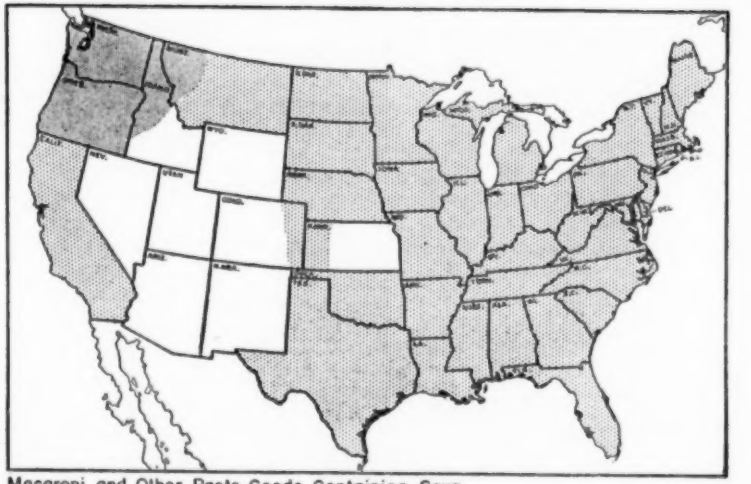
Soya Flour and Grits



Pancake, Muffin, and Waffle Mixes Containing Soya




Bread Containing Soya



Macaroni and Other Paste Goods Containing Soya

# *Spoilage of Canned Foods in Iowa*

P. MABEL NELSON

*In 1923, shortly after she had received her doctor's degree from Yale University, Dr. Nelson went to Iowa State College, where she is now head of the department of foods and nutrition. She is also chairman of the Iowa State Nutrition Council. Mrs. Ruth Seaton Hicks, extension associate in foods and nutrition and field worker for the Council and for the Iowa Extension Service, helped with the survey reported here.*

NEARLY 2,200,000 of the 150,000,000 quarts of food canned in Iowa homes in 1943 have already spoiled, if a random sample of 618 families accurately indicates conditions. Though the spoilage was less than 2 per cent of the total canned by each of the three types of families studied—city, town, and farm—it represents food which would have supplied about 17,500 persons, on the basis of 125 quarts per person recommended in the Iowa canning budget.

**Planning the Sampling**

Early in 1943 when newspapers throughout the country were printing scarehead stories of homemakers' unsuccessful canning attempts, the Iowa State Nutrition Council voted to make a survey to ascertain the facts in the state situation. Originally the survey proposed to find out what foods spoiled, to what factors the spoilage was related, and how extensive it was.

Later M. L. Wilson of the Food Distribution Administration requested a report from the state on the total number of gardens, the amount of food produced and the amount preserved not by canning alone but also by other means (such as drying, salting, pickling), and the equipment needs for 1944. As a result, the Nutrition Council added these to the list of facts to be ascertained.

In order to make the one survey cover the several problems, R. K. Bliss, director of the Iowa Extension Service, was consulted and plans were made to interview a random sample of the families in the state. The sample was scattered over the entire state so that about one family out of every 1,000 was interviewed and so that every family in the state had the same chance of being in the sample.

The plan for sampling was devised by George W. Snedecor, research professor and head of the Iowa State College Statistical Laboratory.

**The Interviewing**

A questionnaire was designed for those who interviewed the homemakers. In the rural areas, the families were interviewed by the county home extension personnel. In the towns and cities, with a few exceptions, the calls were made by one interviewer. The house calls were started late in October.

The sampling method used took the interviewers into homes of every type, from economic, racial, marital, and age standpoints. The homes in the towns and cities varied from the wealthiest and newest to the poorest and the oldest. Certainly the majority of the nationalities and races found in Iowa were represented. Some of those interviewed were bachelors; some were widowers; many were widows; several were past 80 years of age; and some were businesswomen who lived alone and were away from home all day. The ages ranged from young brides to a few couples well past 80.

All city and town interviews were completed by the end of December. A few farm families are still being interviewed. However, to date (January 7) there are returns from 294 city, 153 town, and 171 farm families—a total of 618

families. There will be approximately 700 returns when the study is completed.

The homemaker was the judge of whether her food kept or spoiled. The figures presented in tables 1 and 2 show the number of quarts of food which had spoiled at the time of the interview. More foods may have spoiled since then.

fruit (all kinds), peas, and beans. A few miscellaneous products, such as beets, carrots, soup mixtures, spoiled.

It is not surprising, of course, that corn, peas, and beans were lost in quantity, since the non-acid foods are difficult to process with home equipment. Should homemakers be advised to freeze or dry these products another year

TABLE 1

*Spoilage reported in Iowa home canning survey*

| LOCATION OF FAMILIES | NUMBER OF FAMILIES INTERVIEWED | FAMILIES REPORTING NO CANNING | TOTAL QUARTS CANNED | AVERAGE QUARTS CANNED PER FAMILY REPORTING CANNING | FAMILIES REPORTING NO SPOILAGE | | FAMILIES REPORTING SPOILAGE | | FOODS REPORTED SPOILED | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Number | Per Cent of Those Reporting Canning | Number | Per Cent of Those Reporting Canning | Quarts | Per Cent of Total Quarts Canned |
| Farm | 171 | 5 | 49,146 | 296 | 86 | 52 | 80 | 48 | 827 | 1.68 |
| Town | 153 | 8 | 31,579 | 218 | 96 | 66 | 49 | 34 | 316 | 1.00 |
| City | 294 | 24 | 48,497 | 179 | 169 | 63 | 101 | 37 | 705 | 1.45 |
| Total | 618 | 37 | 129,222 | 222 | 351 | 60 | 230 | 40 | 1,848 | 1.43 |

**Corn Loss Highest, Then Tomatoes, Fruit**

The figures for average losses do not, of course, tell the entire story. Several women lost all or nearly all of a product canned, whereas others lost one jar or so only. For example, one woman canned 65 quarts of corn and lost all of it; another lost 100 of her 150 quarts of corn; another, 50 out of 65 quarts of

instead of attempting to can them? Some of the foods that spoiled were canned in pressure cookers, showing that the use of a pressure cooker was no guarantee that the product would keep.

Seventeen per cent of the families interviewed used pressure cookers for canning non-acid vegetables.

TABLE 2

*Distribution of spoilage by products*

| FAMILIES | TOTAL QUARTS SPOILED | DISTRIBUTION OF PRODUCTS SPOILED | | | | | |
|---|---|---|---|---|---|---|---|
| | | Corn | Tomatoes | Fruit | Peas | Beans | Others |
| | *quarts* | *quarts* | *quarts* | *quarts* | *quarts* | *quarts* | *quarts* |
| Farm | 827 | 332 | 150 | 122 | 106 | 80 | 37 |
| Town | 316 | 76 | 38 | 58 | 110 | 34 | — |
| City | 705 | 302 | 142 | 89 | 45 | 116 | 11 |
| Total | 1848 | 710 | 330 | 269 | 261 | 230 | 48 |
| Percentage | 100 | 38 | 18 | 15 | 14 | 12 | 3 |

tomatoes; another, all the 19 quarts of applesauce she put up.

The products which spoiled in greatest quantity in order of spoilage were corn, tomatoes,

**Why the High Tomato-Fruit Loss?**

The most surprising finding is that so many women lost tomatoes and fruits. Ordinarily these are readily processed and give little

trouble. However, the summer of 1943 was wet, and some women reported difficulty in ripening the tomatoes—others that the tomatoes were sun burned and as a result made a poor initial product.

#### Analysis of Spoilage Causes

The homemakers were asked why they thought their products did not keep. Most of the women had trouble with the new self-seal lids which did not seal. In many instances the lids lifted off the jars at the end of the processing period or several days after the screw bands were loosened; others complained that the rubbers were too thin and did not hold. The glass lids cracked. The new square glass jars broke readily, many of them while processing in the hot water bath. Some women found nicks in their old-style, used Mason jars after spoilage had occurred. Some attributed spoilage to the use of old lids. There were some inexperienced canners who thought their technique was at fault. Comments of other women were: "Poor product to start with," "Stood too long before canning," "Not cooked enough," "Not enough sugar used." The frequency with which women made the last comment indicates a common belief that fruits will not keep without a generous use of sugar and lack of understanding of the underlying principle of sterilization.

#### On the Asset Side

Estimates of Iowa's 1943 food preservation and storage totals, based on this survey, are: 150 million quarts canned, an average of 214 quarts per Iowa family; 2½ million quarts frozen, an average of 28 quarts per family using lockers; 5¾ million bushels stored, or 8 bushels per Iowa family; 1 million gallons brined; half a million pounds dried; and 20 million containers of jellies, jams, relishes, and pickles.

The spirit of those interviewed was most heartening. One young couple, both war workers, were so proud of their achievement that they invited the interviewer to the basement to see their 350 quarts of food, all canned at night.

In another family of four people, the mother used her vacation for canning and had 300 quarts to her credit. An aunt and a niece had canned 250 quarts because they wanted to be sure there'd be enough food "for the boys when they come home on furlough!" The older people seemed particularly proud of their accomplishments in gardens and in canning. One woman, an infantile paralysis victim confined to a wheelchair, had canned 250 quarts for her family of five. In few instances was there complete unconcern and disinterest in the gardening and canning program.

When there had been no garden or no canning, there was almost always a good reason why: lack of gardening space, or poor soil, or full-time work, or the fact that both husband and wife were working. Age made little difference, as several of the gardeners and canners were in their seventies and eighties.

#### Needs Revealed by the Survey

A need revealed by the survey is for a canning plan and a budget for using the foods canned. Only a few of the women interviewed knew how much they had put up without counting the cans for the interviewers, and practically none had a canning plan worked out in relation to the nutritional needs of their families. Many women remarked that already (in December) all of some foods was gone or that most of the total foods canned had been eaten.

The answers to the question as to whose timetable was used for processing showed that many depended upon their mothers, their neighbors, the Ball Blue Book, the pressure cooker directions, or the extension service recommendations. Some used no guide of any kind. Many of these homes obviously are not reached by the home economics teachers or by the state college extension service. The challenge for 1944 will be to get canning information into the many homes not reached by the present educational facilities.

# *Wartime Home Food Conservation: The National Picture*

MENA HOGAN

*Before Miss Hogan became field agent of the Extension Service of the U. S. Department of Agriculture in February 1943, she had been in extension work in Arkansas for 15 years and had received a master's degree from the University of Wisconsin.*

THIS represents 10,537 ration points, an Oklahoma farm woman pointed out to her home demonstration agent recently in showing her the family's supply of canned fruits, meats, and vegetables. This was only a part, too, of a storage room filled almost to overflowing with other products of the family's labor in drying, curing, brining, and storing! Guarantee of a well-balanced diet for this family of four!

A Winston County, Mississippi, homemaker, Mrs. J. S. Dubard, reported, "This year I have canned 225 quarts of vegetables, 185 quarts of fruit, 65 pints of preserves and jellies, 42 quarts of pickles and relishes, and 35 quarts of meats. In addition, our stored supply of foods includes 200 pounds of dried vegetables, 25 pounds of dried fruit, 900 pounds of cured meats, and 120 gallons of sirup. Our October garden had in it 20 varieties of vegetables—and we have yet to dig two acres of sweet potatoes!" All this for a family of seven!

"Our family has yet to use a single ration point for the purchase of any food except coffee," commented Mrs. Ralph Scearce, farm woman and president of the Kentucky Federation of Homemakers. This statement was made in November as she told of various activities having to do with her own full pantry. Vassar graduate, former teacher, farm homemaker for 17 years, Mrs. Scearce sets this example to some 15,000 fellow homemakers in Kentucky.

Typical illustrations, these, of individual effort in the wartime food conservation program!

**Motivations, Results**

The effect of such activities on the general food situation is not to be underestimated. The war need for production and conservation has greatly expanded the sum total of foods conserved. Rationing programs, too, have had a salutary effect. A. E. Schilletter, specialist in horticulture, in reporting the South Carolina achievement of approximately 25 million containers filled commented thus: "The fact that comparatively high ration points are required for canned products has been one of the greatest incentives for increasing the preservation of food, particularly among town and city homemakers."

Perhaps one of the most important by-products of such an immense achievement has been the increasing realization on the part of the homemaker that this is her own important field of war activity—that she is contributing to the war effort as directly by thus saving part of the nation's food supply as she would be if she were rolling bandages, making surgical dressings, or working in a defense plant. All in all, she has tremendous pride in her work.

**Canning Sandwiched In**

Unfortunately the going hasn't been easy. Many homemakers, faced with labor shortages on the farm as well as in the home, have had duties outside their regular household activities. Some have manned tractors, driven teams, helped with harvesting.

Others were working in industry freeing men for essential war work. Canning for them had, then, to be literally sandwiched in. Do-

ing the family washing and ironing with one eye on the pressure cooker has not proved an automatic process. Especially if there was a baby to mind!

**Toil and Trouble**

If these had been the only difficulties, however, the housewife would have considered herself fortunate. They were not. Equipment presented a problem ingenuity couldn't always meet. Few urban people had enough large-size kettles they could use for canning acid fruits or vegetables.

Steam pressure cookers were not manufactured in sufficient quantities early enough to catch the peak seasons of production of vegetables.

Gauges for pressure cookers were needed for war uses as well; consequently, the new purchaser had to learn to use substitute devices for gauges. In most instances these were not satisfactory.

New types of closures came into being during the year, and even experienced canners often found these unsatisfactory. Rubbers were sometimes smelly, tops sometimes didn't fit, glass jars weren't always uniform, jars sometimes broke, and manufacturers' directions didn't always fit their wartime products.

**Contribution of Home Economists**

Yet homemakers emerged from this nightmare—somehow—making the best of the situation. Through it all they were appreciative of the help of the home economics teacher, the home demonstration agent, the Farm Security home supervisor, and the home economist with equipment companies, all of whom redoubled their efforts to help the homemaker adjust to the new difficulties. Extension specialists gave new thought to their own subject-matter literature, examining it critically and adjusting it to meet the needs of the urban as well as the rural family.

Many state home demonstration staffs allowed other subject matter to go along of its own momentum for the time being and devoted from three to four months to teaching urban and rural homemakers the approved methods of canning.

"I donned a white uniform along with the rest of the Georgia state staff," Lurline Collier, state home demonstration agent, said in telling of the way in which every neighborhood, hamlet, town, and city in Georgia was covered with old-time canning demonstrations. Canning methods came in for much discussion among home economists generally. Timetables, whether the pressure cooker was absolutely necessary for canning nonacid vegetables, variations in hot-water-bath processing, and oven canning were often heated topics for consideration.

Home economists came to see the need for further co-operative action. They realized that if one agency taught one method and another a different one, the end product would be a general confusion. State agency leaders, therefore, in most states came together early in the year and decided upon methods of technique and procedure.

"All home economists in Virginia teach the same methods of canning," Martha Creighton, state supervisor of vocational education in Virginia, commented recently and added with some pride, "Nor is there a duplication of effort."

Such co-operative undertakings promise much for the future not only for food conservation but for many other lines of work. At least partly as a result of their efforts, homemakers everywhere have become food-conscious. The challenge, of course, to home economists is to keep her that way.

Can they help her see that so far as food is concerned, what is essential in war is also essential in peace? Here is a whole postwar problem in itself.

# *Community Canning Centers*

ESTHER H. SCOTT

*Mrs. Scott is junior administrative assistant in the Food Distribution Administration. She went to that federal agency in March 1943 after nine years of service with the WPA. Before that she lived abroad as the wife of a foreign service officer, and while in Paris she studied at the Alliance Française.*

IN AREAS where truck and home gardens have produced fruits and vegetables in excess of the immediate consumption needs, shortages of labor, transportation, and refrigeration facilities have frequently caused the loss of considerable quantities of food of prime quality. Such losses, at a time of food shortages, are a matter of national concern.

One of the most effective ways of preventing waste of fruits and vegetables and of preserving them for future use is through the year-round operation of community food preservation centers where individuals can bring in produce to be canned, frozen, or dehydrated. Early last year, therefore, the Food Distribution Administration encouraged the establishment of such centers and arranged for the release of critical materials needed to equip them.

**Equipment Needed**

To operate efficiently, community canneries must use larger equipment than is needed for home canning, and facilities must be available for the simultaneous accommodation of several people with different products to process. On the morning that Mrs. Jensen's strawberries are at their prime, Mrs. Jones wants to can the peas she has so tenderly nurtured in her victory garden. Mrs. Black's spinach is also ready, and so it goes.

To accommodate everyone and to prevent the loss of any of the precious food, equipment of various kinds must be provided. Regardless of the size of the center, there must be tanks or vats for washing and blanching fruits and vegetables and also worktables for sorting, preparing, and packing the products in cans.

The size and number of pressure vessels required depend upon the estimated amount of produce which will be brought in daily. In smaller units it is more practical to have two or three No. 2 retorts with a capacity of 33 quart-size tin cans each than one No. 3 retort with a 106-can capacity.

Where canning is an adjunct to school lunch programs, the pressure cooker stockpots which are being manufactured this year will prove useful the year round. Their composition is such that they may be used for pressure canning and for such open kettle processes as apple-butter making. In larger units a 10- to 25-horsepower boiler is needed for speed and economy in supplying heat for all pressure and steam equipment.

**Training Supervisors**

Obviously, if waste through spoilage is to be held at a minimum, persons processing food must be familiar with approved canning techniques. In response to requests from various parts of the country for demonstrations of community canning methods, food preservation specialists of the FDA's Washington staff assisted at workshop conferences in Idaho, Tennessee, Texas, Georgia, and Arkansas last summer.

The lack of trained supervisors for community canneries was constantly being brought to the attention of these specialists. Consequently, the FDA in co-operation with other federal agencies, including the U. S. Office of Education and the USDA's Extension Service, conducted a national workshop training conference at Peoria and Pekin, Illinois, during the last two weeks in January to train repre-

sentatives of the several agencies to hold similar workshops at the state level for cannery supervisors.

**Toll Charges and Financing**

Community canneries are set up in various ways to meet needs peculiar to the community. Many canneries, operating in conjunction with school lunch programs, charge for the use of the equipment a toll ranging from 5 to 10 per cent of the food canned. The wide variety of food thus obtained aids in providing a balanced menu for the school lunches at lower cost.

Other canneries, as for instance those set up at farmers' markets, make a cash charge to cover the cost of cans and overhead. One such plant with a capital investment of $1,800 served approximately 4,000 patrons last summer and by September 5 had processed 129,594 No. 2 cans. During the first 35 days of its operation a total of 97,875 cans was processed and $740 was repaid to the city on its investment.

Initial funds required for equipment, supplies, utilities, and labor costs are usually assumed by the local board of commissioners, the welfare board, farmers' co-operatives, the chamber of commerce, or civic or fraternal organizations.

Initiative for organizing a community and planning a center, however, is usually taken by some energetic individual who is aware of the need of preserving local produce and able to devote time to planning and making necessary arrangements. Often a home demonstration agent, a vocational agriculture or home economics teacher, or a civic leader will provide the necessary spark to fire the community.

**Last Summer's Record**

Community food preservation centers, in addition to providing processing facilities for individuals who grew their own fruits and vegetables last summer, were the means of utilizing local surpluses as in South Carolina, Georgia, and Mississippi, where—owing to adverse weather conditions—three crops of green beans planted at spaced intervals matured at the same time, thus causing a glut in the market.

In order to prevent the loss of these beans, which could not be shipped owing to an ice shortage in that area, 85 carloads were purchased by the FDA and canned in community food preservation centers to distribute to schools for use in lunches and to various institutions. Similar situations prevailed in other areas.

Often in the past, produce of excellent quality for canning has been dumped at packing sheds because it did not meet shipping requirements. Such waste was prevented last summer at Salt Lake City, Utah, where several thousand gallons of cherries, unfit for shipping because they were stemless, were canned instead of dumped and are now being used for school lunch and welfare needs.

**How to Get a Center**

Equipment requirements for community food preservation programs for 1944 have been anticipated, and the manufacture of various items has been provided for. Persons interested in securing equipment should communicate with the nearest office of the FDA. State and regional officials will be able to advise applicants as to availability of various items and procedures which they should follow to obtain preference ratings to purchase such items. All applications for priority assistance in connection with the purchase of food processing equipment for community food preservation centers should be channeled through FDA field officials.

A mimeographed manual on the organization and operation of community food preservation centers can be obtained by writing to the Food Distribution Administration, Washington 25, D. C.

# *The Influence of Venting on Pressure Cooker Performance*[1]

WILLIAM B. ESSELEN, JR.

*Dr. Esselen is assistant research professor in the department of horticultural manufactures at Massachusetts State College and since March 1942 has been spending about half of his time in Washington, D. C., as technical consultant in the War Food Administration. Before assuming his present position he was food technologist for a glass company in Toledo, Illinois. He has been actively interested in home canning problems for 8 or 9 years, and this article is based on his latest findings.*

IT is generally considered that for the safe processing of home-canned nonacid foods temperatures of 240° to 250°F must be used. The pressure cooker is especially designed for this purpose. Continued heating of the completely closed vessel increases the pressure and temperature of the steam within the cooker. If no air is present, the temperatures reached depend wholly upon the pressure.

### Why Drive Out All Air?

In order to obtain the high temperatures required for processing canned foods, it is very important that all of the air be driven out of the pressure cooker. A mixture of air and steam will create a pressure without a corresponding high temperature. The presence of air may also form "cold air pockets" in the cooker so that the jars are not all processed at the apparent or indicated temperature.

Most home-canning instructions recommend processing at 10 or 15 pounds pressure, as shown by an accurate pressure indicator, with corresponding temperatures of 240° or 250°F, respectively. These process times are based on the assumption that all of the air has been driven out of the pressure cooker before the start of the process. Therefore, the correct use of the petcock or vent becomes one of the most important points in the operation of a pressure cooker.

[1] Contribution No. 505, Massachusetts Agricultural Experiment Station.

In the opinion of many home-canning authorities, improper venting, with its resultant understerilization, is a common cause of spoilage in home-canned foods.

Because of the importance of proper venting in pressure cooker operation, it seemed desirable to investigate practices as recommended at present and to determine just how much venting is required. Although this investigation is still in progress, a preliminary report is presented here because constructive suggestions can be made for the 1944 home-canning season on the basis of findings.

### *Present Practices*

In order to obtain a picture as to present recommendations for venting pressure cookers, a survey was made of the home-canning instructions which different agencies provided in 1943.

The data obtained are summarized in table 1. They represent the instructions given in a total of 62 home-canning bulletins and circulars issued by the U. S. Department of Agriculture, U. S. Department of Interior, 43 state extension services, Alaska, and four manufacturers of home-canning supplies.

### Lack of Uniformity

From table 1 it is apparent that there is no uniformity in the instructions provided for venting pressure cookers. In some cases the instructions varied in different publications

within a state. Where a range of venting times was given, it was generally indicated that the shorter time applied to small pressure cookers of about 12-liquid-quart capacity and the longer times to cookers of 20- to 25-liquid-quart capacity.

It is obvious, therefore, that in some cases spoilage of home-canned foods because of inadequate venting of pressure cookers might be expected. Much more trouble would probably be encountered were it not for a margin of safety provided in most recommended home-canning process times.

#### Commercial Canning

In commercial canning the importance of complete venting is well recognized and has been the subject of considerable research work. In order to make sure that the air is removed from the retorts (the large-size commercial pressure cookers) they are vented both before the start of the process time and throughout the processing. In many cases the retort has several vents located at different places.

### *Experimental Procedure*

In this investigation, temperatures at different locations within the pressure cooker, during processing, were measured by means of calibrated iron-constantan thermocouples connected with a Leeds and Northrup portable null point potentiometer indicator through a selector switch. The thermocouples were introduced into the pressure cooker through a stuffing box in the top. The water placed in the bottom of the pressure cooker and that used to fill the jars immediately before processing was at a temperature of 120°F.

Temperature measurements were made at four points within the cooker: in the center and two inches below the top, in the center and half way between the top and bottom, and on opposite sides half way between the top and the bottom. All tests were made on a gas stove, with the burner used for heating turned on full until the cooker had reached the processing temperature.

#### Cookers of Two Sizes

Tests were made with 11-quart and 25-quart sizes of aluminum pressure cookers with different loads of pint and quart home-canning jars filled with water at 120°F. Various venting procedures were employed in order to

TABLE 1

*Instructions for venting pressure cookers, as given in 62 home-canning bulletins distributed in 1943*

| INSTRUCTIONS AS TO VENTING PROCEDURE | NUMBER OF BULLETINS GIVING INSTRUCTIONS INDICATED |
|---|---|
| 1. Follow those of pressure cooker manufacturer | 5 |
| 2. Close petcock when steam escapes freely. Use thermometer instead of pressure gauge. Vent slowly and continuously after process temperature is reached | 1 |
| 3. Vent until steam escapes freely and with audible sound | 2 |
| 4. Vent not over two minutes after steady stream of steam is escaping from vent | 1 |
| 5. Vent five minutes after good stream of steam is escaping | 3 |
| 6. Leave petcock open until steam has escaped for five to seven minutes | 11 |
| 7. Vent five to ten minutes | 3 |
| 8. Let steam escape from vent four to seven minutes | 5 |
| 9. Leave petcock open until steam has escaped for seven minutes | 18 |
| 10. Allow steam to escape seven to ten minutes | 10 |
| 11. Vent for at least ten minutes | 2 |
| 12. Vent for a "few" minutes | 1 |

determine the venting time necessary to drive the entrapped air out of the pressure cooker and to obtain a uniform temperature within the cooker. It was assumed that the pressure cooker had started to vent when steam escaped freely from the open vent or petcock with an audible sound.

### *Results*

The results of these studies are summarized in table 2. It may be seen that an 11-quart or small-size pressure cooker could be satisfactorily vented in 4 minutes. However, with the 25-quart size (commonly used in home canning) it was found that in some cases it was difficult to vent the cooker sufficiently so that uniform temperatures could be obtained inside. This was particularly true with a full load of pint jars. In this case it was necessary to boil the water in the cooker for ten minutes before the cover was sealed in place.

The tests made without venting gave somewhat higher readings than might be expected. It is assumed that this was due to leakage around the seal of the cooker which allowed some air to escape.

#### Coolest Spots

In general, the coolest points in the incompletely vented pressure cookers were found to be at the sides, and the highest temperatures were usually reached in the top of the cooker. These data would seem to indicate that in an incompletely vented pressure cooker some jars might be given adequate processing while others would be underprocessed.

TABLE 2

*Effect of different venting procedures on the temperature variation inside pressure cooker during processing*

| SIZE OF PRESSURE COOKER (ALUMINUM) | LOAD | VENTING PROCEDURE | RANGE OF TEMPERATURES IN COOKER | | | |
|---|---|---|---|---|---|---|
| | | | At 10 pounds pressure* | | At 15 pounds pressure* | |
| | | | Minimum | Maximum | Minimum | Maximum |
| | *jars* | | *degrees F* | *degrees F* | *degrees F* | *degrees F* |
| 11 qt | 3 qt | No venting | 237 | 239 | — | — |
| " | " | Vented 4 minutes | 240 | 240 | 250 | 250 |
| " | 4 qt | Vented 4 minutes | 240 | 240 | 250 | 250 |
| 25 qt | 7 qt | No venting | 235 | 240 | 246 | 250 |
| " | " | Vented 5 minutes | 238 | 240 | 248½ | 250 |
| " | " | Vented 7 minutes | 239 | 240 | 249 | 250 |
| " | " | Vented 10 minutes | 240 | 240 | 250 | 250 |
| " | " | Vented slowly and continuously | 234 | 240 | — | — |
| " | " | Water boiled 5 minutes before closing plus 10 minutes' venting | 240 | 240 | 250 | 250 |
| " | 18 pt | Vented 12 minutes | 233 | 240 | 243 | 250 |
| " | " | Vented 48 minutes | 236 | 240 | — | — |
| " | " | Water boiled 5 minutes before closing plus 10 minutes' venting | 237 | 240 | — | — |
| " | " | Water boiled 10 minutes before closing plus 10 minutes' venting | 239 | 240 | 250 | 250 |
| " | 9 pt | Vented 5 minutes | 237 | 240 | — | — |
| " | " | Vented 10 minutes | 237 | 240 | — | — |
| " | " | Water boiled 5'minutes before closing plus 10 minutes' venting | 238½ | 240 | — | — |
| " | " | Water boiled 10 minutes before closing plus 10 minutes' venting | 239 | 240 | — | — |
| " | 7 pt | Vented 10 minutes | 238 | 240 | — | — |

* As indicated by standardized pressure gauge.

**If Readings Are Off 5°F**

If it is assumed that the actual processing temperature in a pressure cooker might be 235°F, due to insufficient venting, whereas the reading on the pressure indicator was 240°F, data obtained in this laboratory would indicate that the process time required would have to be considerably increased. In some cases the process time required at 235°F would amount to as much as 140 per cent of that at 240°F. For example, a product which requires a process time of 30 minutes at 240°F would have to be processed 42 minutes at 235°F to receive the same degree of sterilization.

### *Conclusions*

With present practices of venting pressure cookers, it is obvious therefore that home-canning process periods must provide a generous margin of safety. Likewise, proper venting procedures should be emphasized.

Based upon experimental data it would appear that many of the directions provided for home canning in pressure cookers do not bring about sufficient venting and in some instances might contribute to underprocessing. A venting time of at least 10 minutes is to be recommended for pressure cookers of the size commonly used in home canning. When processing pint jars, particularly, it would be desirable to allow the water to boil for 10 minutes in the cooker just before sealing on the top, in addition to the 10-minute venting time.

## *When We Speak to Each Other of Peace*

When we speak to each other of peace in the welter of blood and of agony in which the world now lives—of men dying day after day in unimaginable numbers and by every death—when we use the words for peace to each other in this time of war, the irony answers us: What peace?

Is it the old lethargic peace we mean . . . the peace that lasts from one war till the next? . . . Is the peace we mean the peace of those who used to tell us, If we leave them alone they'll leave us alone; of those who used to tell us, It takes two to make a war; of those who used to say, The Atlantic is three thousand miles across and the Pacific is broader? . . .

Or is it . . . the new peace of the hard-headed men who know what the score is; who know all the answers? . . . Is it the peace of those who tell us the best treaty of peace is the biggest Navy; of those who say, Grab for the bases, Hang onto the islands, Buy up the airways, . . . Kick the foreigners out and lock the gate after them? . . . Is it this we mean by peace in the year of Tarawa, in the year of Salerno, in the year of the Russian dead and the dead on the deserts. Is the peace we mean the armed peace, the war without warfare, the peace that devours the peace-makers, bleeding them white? . . .

We are a generation guilty of two wars within twenty years, and the second we could have prevented with wisdom and courage. . . . But . . . we have learned what our failure was while the chance of action remains to us. . . .

We know that peace is a thing to be *made*, not accepted, a thing to be made . . . by labor . . . by continuing labor, increasing labor, labor that does not end with a meeting or conference. . . .

If we mean when we talk of peace . . . that peace will in truth be made when the war is won . . . we can speak of peace to the living and dead without shame. If we do not mean it—if it is less than this we mean—then let us in common decency be quiet and not talk of peace.—ARCHIBALD MACLEISH, remarks made on the Metropolitan Opera Program, December 25, 1943.

# *In Short . . .*

## *Child Care Project*

MIRIAM C. O'NEIL
Riverside High School, Milwaukee

Remembering that the first purpose of home economics is to help preserve and improve the American home, our home economics department has been deeply concerned about the effects of war on the home. Many high school girls who now care for children have had no training for this work except that offered by growing up in a good family.

No child care course has ever been offered in the Milwaukee high schools, although this year one of the girls' trade schools has a nursery school for which the high school girls prepare lunch. Even if such a course were offered, many of the girls who have the care of children do not take home economics.

The home economics student club at Riverside therefore attempted to reach these girls.

### Club Project

A year ago when the club members were asked if they would like to learn more about the care of children, there was enthusiastic response. As a result we asked Mrs. Ralph Chamberlin, formerly head of the nursery school at Milwaukee's State Teachers College to talk to the club about problems that arise when one is caring for children. About 60 girls heard her practical talk in which she stated some of the fundamental rules of child psychology, for example: "As you act toward the child, the child will react toward you."

The girls' many questions after her talk indicated how eager they are to learn when the subject touches their lives. We then organized a small but enthusiastic child care group to meet after lunch once a week. At these sessions the girls told of their experiences taking care of children, and we discussed difficult situations. We used the Elmira (New York) course of study described in the January 1943 issue of the JOURNAL OF HOME ECONOMICS.

For further aid we appealed to Mrs. Theodore Griggs, who is in charge of the nursery school at the State Teachers College. She permitted a member of our home economics department to visit the nursery school daily during our final examination week. The visiting instructor took notes on handling of the daily routine and reported her observations to the girls. From Mrs. Grigg's bibliography on child care, we ordered five books, among them *Keep Them Human* by C. Madeleine Dixon (The John Day Company) and *Learning to Care for Children* by Ruth Bradbury and Edna Amidon (D. Appleton-Century Co., Inc.).

Later permission was given our students to visit the nursery school in pairs. The girls were allowed to go whenever they had study periods the first thing in the morning or directly before or after lunch. Again they reported back to the entire group.

### Wage Rates

Among problems discussed at our noon sessions have been wages and what employers should and should not expect of the girls. We have emphasized the importance of the girls' having a clear understanding with their employers before they go to take care of a child, so as to prevent any tendency toward exploitation.

If the children sleep while the girls are on duty, the hourly rate has been 25 cents. When the girls are hired for a long evening, however, we consider that a somewhat lower rate per hour is just. If the girls are to play actively with the children or if they are to wash the dishes, the rate is higher.

This year, however, because of the shortage of labor and the opportunities for jobs elsewhere, our girls are asking—and getting—35 and even 40 cents an hour. We expect to

return to the 25-cent rate eventually. Another regulation worked out by the group is that if the girl stays until midnight or later the employer must take her home and that the girls should not work as late as midnight on school nights.

Still another policy adopted by the group is not to tell tales on charges but by skillful questions to get the mother to realize where help is needed.

**Definite Gains**

We are continuing the work this year. Although results are difficult to evaluate, definite gains have been noted: The girls are aware that there is a right and a wrong way to bring up children and that there are specialists to whom they can turn, books that they can read for help. They know the importance of the education of preschool children and that they must improve themselves if they are to become good mothers.

## *Saboteur in the Home*

MARTHA SHAEFFER
National Safety Council

Thousands of our homemakers, hundreds of our home economics trained women are saboteurs today. They don't know it, and the Federal Bureau of Investigation isn't interested in picking them up. Yet, each is a saboteur as sure as the word means "one who obstructs in all possible ways the regular process of production."

**Plea: Guilty**

They place small rugs at the head and foot of stairways. They let the clothesline sag to chin height when it's not in use. They don't bother to stand to one side of the stove as they light the oven or broiler gas burners.

They never get around to buying that nonskid mat for the bathtub and shower room. They persist in climbing up on unsteady chairs and ladders to reach for things on the top shelf. In buying their washing machines they fail to check to see if the wringer has an easily operated safety release. They never think to place bedroom furniture so as to avoid painful collisions in the dark.

And these are far from all the careless practices of which they are guilty.

**Economic Loss, Heartaches**

From Pearl Harbor to January 1, 1944 the home accident death total pyramided to more than 63,500. In 1942 30,000 persons—6,000 of them workers outside the home—were killed in homes. The economic loss is estimated at $550,000,000, but the loss in the hearts of loved ones cannot be measured. Nor can the effect of such a loss to the war effort.

We do know that accidents since Pearl Harbor represent lost time equivalent to that required to build more than 35,000 bombers or 108 battleships. We know that 750,000,000 man days were lost.

Who best can do something about stopping these accidents? The homemaker and home economics trained women who work with these homemakers. That, indeed, is hard to believe, but here is the picture:

Industry, by and large, is doing its job. It also is doing part of the job for the homemaker by carrying its safety program beyond the factory gates in an "off-the-job" accident prevention campaign.

Traffic death figures are down, due to wartime restrictions and official and public cooperation. Even in peacetime, these two (home and traffic deaths) grapple with each other to top the list. Public deaths (other than motor vehicle) are the lowest of the four classifications.

**Good Housekeeping Means Safety**

BUT—home deaths are up!

That puts the problem right back in the lap of the homemaker and the home economist. How can they help?

They can learn and think and act safety. What home safety really adds up to is good housekeeping.

There are hundreds of simple methods of

preventing accidents. Some of these are summed up in a "home check list," which the National Safety Council will gladly provide free to anyone who requests it from the Home Division at 20 North Wacker Drive, Chicago, Illinois.

Summed up, safety is good housekeeping well flavored with common sense. More than 63,500 lives could have been saved in 1943 by this recipe.

## *Aid for School Lunch Cooks*

MARIE P. RINGLE
District Supervisor of Home Economics
Ball State Teachers College
Muncie, Indiana

Many homemaking teachers have long recognized that school lunch cooks need to have a better understanding of the purposes of a school lunch program.

The teachers of Delaware County, Indiana—recognizing this need and desiring also to bring about closer co-operation between teachers and cooks—had an all-day conference last fall before the lunchrooms were opened. The home economics teacher and the cooks from each of the seven schools in the county which had a hot lunch program attended the conference. The number of persons served in the seven schools ranges from 125 to more than 500 daily. One of the schools is used as a training center for student teachers of Ball State Teachers College.

The meeting was in charge of Mrs. Marie Dice and Mrs. Wanda Hughes, homemaking teachers and county school-lunch consultants, who were sent by their county superintendent last May to a state conference which trained them for serving as county consultants.

### Objectives

The Delaware County meeting had the following objectives: (1) to acquaint cooks with the real purposes of a school lunch in its relation to the total school program; (2) to help them realize the importance of their own work and the responsibilities they should assume; (3) to help them see why a home economics trained person should be in charge of planning the menu and preparing and serving the food; (4) to show them how to prepare food in order to conserve nutritive values; (5) to acquaint them with desirable sanitary practices; (6) to explain the duties of the head cook and her responsibility in relation to other cooks, student help, or volunteer workers; (7) to bring about closer co-operation between teachers and cooks.

### Conference and Results

Homemaking teachers and the district supervisor of home economics gave talks on the various topics. A school lunch cook discussed personal standards and wore the type of uniform desirable. The excellent discussion which followed each talk indicated the keenness of the women's interest.

Recent contacts with the schools have revealed many improvements which trace to the conference: improved food preparation practices which conserve nutrients, better handling of student help, raised standards of sanitation, dress, and food service.

### Wells County Follows Suit

Wells County also held such a conference for school lunch cooks one Saturday last fall in the Lancaster High School, to which each of the five high schools and two of the elementary schools sent home economics teachers and cooks. The 30 visitors were guests of the school for lunch and visited the kitchen. They were much impressed by the immaculate uniforms of the cooks, the high standards of cleanliness, and the organization of equipment and work. Bertha Garrett and Margaret Johnson, school lunch consultants for the county, planned the meeting with the county superintendent and the district supervisor. At both of the conferences each cook was given an evaluation device by which she could evaluate her own school lunch programs and plan for improvement. Each meeting led to requests for a follow-up conference.

# *National Safety Congress*

GLADYS J. WARD
Illinois Extension Service

"Let's make mother panhandle conscious," urged Dr. Donald B. Armstrong, vice-president of the Metropolitan Life Insurance Company in Chicago at the 32d National Safety Congress over which he presided October 5 to 7. One out of four deaths due to burns has been the death of a child less than five years old. Serious and fatal burns from boiling liquids from saucepans with handles, left within the reach of young children, are preventable home accidents.

Increasing interest in and need for improved safety practices in homes were indicated by the reports of representatives of 30 national cooperating agencies. Victory on the home front, through prevention of home accidents, was the keynote of many reports.

### Work Simplification, Nonslip Waxes . . .

Farm home accident hazards have been increased by the double duties and long hours of farm homemakers who become more than usually fatigued from their farm work and who cannot closely supervise young children. Work simplification to relieve long hours and fatigue is urgently needed as an aid in reducing home accidents.

Slip-retardant paint, nonslip waxes, and safe housecleaning methods and materials were pointed out as other aids to safe home living.

In homes as well as in industry there is need for "teaching safety with the job." As young children are quick to imitate older children and adults, they should be given safety work patterns to follow.

"We must stop home accidents to relieve hospital space needed for care of the sick," declared Stanley H. Kershaw, director of the home and farm safety division.

### AHEA and Safety

Returns from a questionnaire on home safety sent to 48 presidents of state home economics associations last September were reported; they indicated that only 10 state associations had definite, organized activity in home safety education. Cancellation of state meetings had been a factor in some states. About 1,700 persons had been reached through state and local association meetings in the 10 states.

As home safety representative of the AHEA at the Chicago meeting and also on the home safety committee of the National Safety Council, I recommend that this year home safety education be actively sponsored in each state and local home economics program of work. Each state association should be the center of and clearinghouse for home safety education. Already three sections of the AHEA—the extension department, the home economics in business department, and the housing division—have included home safety in their year's plan of work.

Safety work should be integrated into the planning of every department and division of the AHEA to insure a saving of lives in American homes and to help bring victory on the home front in 1944.

# *AVA Home Economists Meet*

HORTENSE HURST
Indiana State Supervisor
of Home Economics Education

"How can we solve problems facing home economics today?" was the question confronting more than 200 home economists from 34 states who attended the home economics section meetings of the American Vocational Association convention in Chicago, December 14 to 17.

### Needs to Be Considered

Needs to be considered in revising and expanding programs in home economics, both now and after the war, were considered, including the need for keying action to vital problems; understanding major social, economic, and political trends and ways in which these are changing personal, family, and community life; providing for all age groups; getting ad-

ministrators, parents, and pupils to share in planning; setting up a community counseling service; providing for earning along with homemaking education; understanding better and co-operating more closely with programs of community agencies; using home economics trained homemakers more; recruiting high school pupils to train for teaching; and having more refresher and specialization courses to keep teachers up to date.

**Speakers on Family Life, Nutrition...**

Mary S. Lyle of Iowa State College discussed democratic family life and criteria by which to determine the extent to which it prevails.

Imogene Cox, War Food Administration, Chicago, pointed out the large numbers of persons not yet reached by nutrition education and those who have not yet improved their food habits. She urged emphasis on use of foods produced in abundance and on those which can alternate for scarce foods and also on ways of decreasing waste.

Dora M. Rude of Madison, Wisconsin, and Josephine Pazdral of Austin, Texas, told of the part-time and adult education programs in their states and advocated more counseling services for adults, more training in educational institutions for part-time and adult education work, scheduling every teacher to teach at least one part-time or adult course a year, and setting up advisory committees of key women in the community to work with the school on an over-all community-school program.

Maude Williamson, Colorado State College, discussed the contribution of research to home economics education; Marion Benson, Indiana State Teachers College, talked on changing food habits; and Helen LeBaron, University of Vermont, reviewed the Sloan Foundation experiment in clothing education. Grace A. Gilky, Worcester, Massachusetts, discussed the mutual problems of women in industry and home economists. Eight pupils of Flower Technical High School presented a panel discussion in which they told how various subjects prepare girls for success in life.

# *Conference on Child Needs*

MURIEL W. BROWN
U. S. Office of Education

What should we be doing for children now? What should we be ready to do for them after the war? Participants in the tenth biennial conference of the National Association for Nursery Education in Boston October 22 to 25 were asked to come ready to consider these two questions.

Consensus of the conference was that much spade work in child care has been done over the country but that accomplishments are yet small in view of the tasks ahead. The most pressing problems relating to child needs today are not wholly war-created; therefore, our real responsibility is to see that basic needs of all children are met continuously in long-time programs of child welfare that reach every family and every child.

Dr. Ernest Osborne of Columbia University reported his preliminary study of services to children now being offered in various parts of the nation and described the differing situations, problems, and approaches.

**Serious Conditions, Goals**

Five conditions now existing should give us all concern: (1) the lack of public understanding of the aims of these programs; (2) the serious shortages of trained personnel, particularly of pediatricians and nursery school teachers; (3) the suspension of some highly desirable community planning under pressure of emergency needs and the tendency to get community approval of projects as war measures rather than as services essential at all times to the well-being of children; (4) the high fees, which in some places are burdensome to low-income families; (5) the financing procedure which tends to favor sporadic developments rather than long-time community planning.

Should not our goals be: (1) adequate health provision for all children under an aided program which distributes both opportunities and financial responsibilities; (2) counseling serv-

ices for all families; (3) year-round education and recreation; (4) consideration of every child as a citizen and an important individual?

**How "Pass the Miracle"**

Only an informed citizenry can "pass the miracle" that will bring realization of these goals. Before basic needs of families and children can be met (1) communities must plan and work together for community life that meets basic child needs; (2) federal, state, and local groups must interact so as to permit flexible use of all resources; (3) we, as individuals, must grow in our sense of moral responsibility for the success of social programs; (4) we, as a nation, must revise our concept of taxation; (5) both as individuals and as groups we must realize our responsibility for becoming informed on important controversial issues and then develop the moral courage to do what we believe right.

**The Time Has Come . . .**

The time has come when those who understand and care about the welfare of children and families must act vigorously, especially in regard to legislation, declared Dr. Roma Ganz of Columbia University in her résumé of conclusions and recommendations of the conference. We must reckon with powerful forces which now threaten to narrow our concepts of social responsibility.

The delegates voted to confirm the action of the Governing Board favoring Senate bill 1130, which would channel through the U. S. Office of Education and the Children's Bureau grants-in-aid to states for wartime services to children of working mothers.

# *ACUCG Revitalized*

ARDENIA CHAPMAN
Drexel Institute of Technology

The Advisory Committee on Ultimate Consumer Goods of the American Standards Association met in New York City, September 27, 1943, with Dorothy Houghton (new vice-chairman of the committee), Edna Van Horn, and Ardenia Chapman representing the AHEA.

Perhaps the most significant development in the work of the Committee is the concentrated effort that is being made to accelerate the work of developing standards for consumer goods by having a definite schedule which will include four meetings each year and by appointing an executive committee who will steer the work, consult with and advise the chairman on matters of policy, act as an interim committee to speed work on consumer goods, help organize projects, and follow the progress of subcommittees.

**Work on Home Refrigerators, Clothing**

The subcommittee on household refrigerators recommended the approval of the personnel of this committee and also approval of two proposed standards which included an American Standard Method of Computing Food Storage, Volume, and Shelf Area of Automatic Household Refrigerators and Standard Test Procedures for Household Electric Refrigerators. ACUCG members will vote by letter ballot on these recommendations.

Reports were presented on the progress of work on war standards, such as setting up specifications for protective occupational footwear; standards for women's safety clothing and for women's industrial dresses, slacks, overalls, jackets, skirts, and aprons.

**Broadened Membership, Basic Projects**

Some national manufacturing groups, labor organizations, and service groups are to be represented on the ACUCG henceforth, as well as additional fields of retailer and consumer interests. The committee voted for this change in membership at the September meeting in order to make the committee more nearly representative of all interests involved and to broaden consumer participation.

Need for completing the three basic projects under way was emphasized: developing textile test methods, completing a dictionary of consumer goods terms, and developing standards of children's and women's garment sizes with

the initial ASA standard for boy's body sizes serving as a guide.

Four other recommendations were approved: (1) that ACUCG discuss the status of the proposed trade rules for colorfastness with the Federal Trade Commission before taking action; (2) that American standards for sheets and sheeting be completed; (3) that a postwar planning committee be appointed to determine the need for standards and simplification for specific commodities made of new materials, such as plastic and synthetic rubber; to determine which of the American War Standards for Consumer Goods should be adapted to peacetime standards; and to examine the difference in speed with which wartime standards are developed as compared to peacetime work on standards for consumer goods; and (4) that the committee secure project sponsors who sincerely wish to promote development of standards.

The AHEA members who attended this meeting were impressed with the potentialities of the revitalized committee and believe that it can do much to promote standards.

## *"Home Economics It Is!"*

From a Michigan State College Report

The christening of four home management houses at Michigan State College last November brought to light an interesting anecdote about how the term "home economics" came to be the preferred designation for our field of activity.

The houses were named after Ellen Richards and three women who had served on the faculty: Maude Gilchrist, charter member of the AHEA and first dean of home economics at Michigan State College, who is still living; Ethel B. Webb, first head of the department of textiles, clothing, and related art, who served the College from 1923 until her death in 1940; and Anna E. Bayha, who taught clothing courses from 1919 until her death in 1933 and who helped link home economics and the commercial field.

At the dedication service last November, Mrs. Agnes Hunt Cade, staff member under Dean Gilchrist, told the following story of how Miss Gilchrist influenced the choice of name for our field:

### Other Labels Advocated

In July of 1912, the College entertained the Graduate School of Agriculture and brought to the campus various notables from other colleges and agencies, among them C. F. Langworthy, then chief of nutrition investigations, Office of Experiment Stations, USDA; Ruth Wardall, Ohio State University; Mrs. Alice P. Norton, University of Chicago; Edna White, now of the Merrill-Palmer School; and Lafayette B. Mendel, Yale University.

The Library of Congress had been exerting considerable pressure upon the USDA to get that agency to decide once and for all what the new field of study should be called. The Library was receiving an increasing amount of material in that field and wanted to know under what heading to catalog it.

Some schools and departments were calling the subject "domestic science," and various bills introduced into Congress for setting up a federal bureau to work in the field had used that phrase. Other schools preferred "domestic economy." But the Lake Placid pioneers had selected "home economics" as the phrase to use in naming the national professional organization, the American Home Economics Association, when they founded it in 1908.

### And She Won

Dr. Langworthy, as chairman of the committee on nomenclature, called a conference of the notables that hot July afternoon to discuss choice of name. Miss Gilchrist argued effectively and tenaciously for the phrase "home economics" as being dignified and conveying the correct meaning, but debate extended far into the night with no decision. The next morning as Dr. Langworthy was leaving, he whispered in her ear: "You win! Home economics it is!"

# *OES Ninth Reader*

SYBIL L. SMITH and GEORGIAN ADAMS
U. S. Office of Experiment Stations

This year's round-up of state agricultural experiment station projects and published results of research of interest to home economists shows that wartime needs have spurred investigations of the timely and practical problems of putting common foods to new uses, of preparing them not only for appetite appeal but for retention of nutritive value as well, and of preserving them for use at some future time.

In other phases of nutrition research attention has been given to food habits and their impact on adequacy of nutrition and to the value of certain common foods in supplying necessary vitamins. The effect of war on the farm family, the need in these times for planned family living, low-cost housing, and the quality of certain wartime textiles have also been subjects for investigation and report.

The experiment station bulletins and circulars, and in a few cases extension publications, dealing with these subjects are noted in the classified list here presented as the Office of Experiment Stations' Ninth Reader.

## OES NINTH READER

### *Food Selection and Preparation*

Home Making of Sugar from Sugar Cane, F. D. STEVENS. Fla. Sta. Press Bull. 577 (1942), 3 pp.

Peanuts for Shortening and for Seasoning Vegetables, H. H. THOMPSON and J. G. WOODROOF. Ga. Sta. Press Bull. 525 (1943), 2 pp.

Sweetpotatoes: A Valuable Food Crop, M. SPEIRS and H. L. COCHRAN. Ga. Sta. Press Bull. 528 (1943), 1 p. [Processed]

The Use of Rice Polishings in Cooking, M. E. HOLLINGER. La. Sta. Bull. 355 (1942), 8 pp.

Fish Recipes: Carp. Mich. Sta. Folder 1 (1943), 8 pp.

Growing Sorghum and Making Sorghum Syrup, C. A. HELM and R. BEASLEY. Mo. Sta. Circ. 235 (1942), 7 pp.

Conserving Vitamin C in Potato Cookery, J. E. RICHARDSON and H. L. MAYFIELD. Mont. Sta. War Circ. 1 [1943], 4 pp.

A Comparison of the Qualities of Flours Made from White Wheat Varieties Grown in Montana When Used for Making Cakes and Cookies, J. E. RICHARDSON. Mont. Sta. Bull. 416 (1943), 32 pp.

Use Milk—An Essential Food. Nebr. Sta. Circ. 71 (1942), 15 pp.

Cooking Dehydrated Vegetables, F. FENTON. N. Y. Agr. Coll. (Cornell) Exten. Bull. 599 (1943), 19 pp.

Cured Lamb for Variety in Oklahoma Farm Meals, J. A. BEALL and D. I. PURDY. Okla. Sta. Bull. B-264 (1943), 6 pp.

The Relation of Ultra-Violet Light and Temperature During Aging to Quality of Beef: Part I. J. A. MCINTOSH, J. SOTOLA, M. BOGGS, J. ROBERTS, C. C. PROUTY, and M. E. ENSMINGER. Wash. Sta. Bull. 422 (1942), 26 pp.

Preserve Vitamins in Food, H. C. CAMERON. W. Va. Agr. Coll. Exten. Circ. WS15 (1943), [8] pp.

Baking with Sugar at High Altitudes, E. J. THIESSEN. Wyo. Sta. Progress Rept. (1942), 10 pp. [Processed]

### *Food Preservation*

Home Canning, W. V. CRUESS. Calif. Sta. Circ. 276, revised (1942), 48 pp.

Wartime Food Processing Aids, W. E. PYKE and and E. DYAR. Colo. Sta. Press Bull. 97 (1943), 8 pp.

Making and Using a Food Dehydrator, W. E. PYKE and L. W. CHARKEY. Colo. Sta. Bull. 477 (1943), 12 pp., plus insert of plans for construction of dehydrators.

Freezing Vegetables and Fruits, W. E. PYKE and A. M. BINKLEY. Colo. Sta. Bull. 478 (1943), 16 pp.

Dehydration of Fruits and Vegetables and Utilization of Dehydrated Products, J. G. WOODROOF, W. E. DUPREE, and H. H. THOMPSON. Ga. Sta. Bull. 225 (1943), 35 pp.

Home Preparation of Fruits and Vegetables for Freezer Storage, F. O. VAN DUYNE. Ill. Agr. Coll. Exten. [pub.] HE-P27 [1943], 4 pp.

Home Dehydration of Fruits and Vegetables. Purdue Agr. Exten. & Expt. Sta. [unnumbered pub.], 8 pp. [Processed]

Preserving Food in Frozen Food Lockers, G. A.

FILINGER and D. L. MACKINTOSH. Kans. Sta. Circ. 209 (1942), 30 pp.

Home Dehydration of Vegetables, S. G. DAVIS, W. B. ESSELEN, JR., and F. P. GRIFFITHS. Mass. Sta. Bull. 404 (1943), 24 pp.

Quality in Frozen Fruits and Vegetables, J. D. WINTER. Minn. Sta. Bull. 362 (1942), 24 pp.

Some Methods of Fruit Preservation in Wartime, J. E. RICHARDSON and H. L. MAYFIELD. Mont. Sta. Circ. 173 (1943), 8 pp.

Vegetable Preservation Handbook for Wartime Use, J. E. RICHARDSON and H. L. MAYFIELD. Mont. Sta. Circ. 174 (1943), 22 pp.

Pickles in Wartime Meals, J. E. RICHARDSON and H. L. MAYFIELD. Mont. Sta. Circ. 175 (1943), 12 pp.

Home Storage of Fresh Fruits and Vegetables, R. H. DAINES and C. H. NISSLEY. N. J. Stations Circ. 460 (1943), 12 pp.

Preservation of Food Products by Freezing, J. H. CLARK. N. J. Stations Circ. 461 (1943), 20 pp.

Food Preservation by Drying, W. C. KRUEGER. N. J. Stations Circ. 463 (1943), 16 pp.

Pickles and Relishes, M. DOERMANN. N. J. Stations Circ. 464 (1943), 8 pp.

Salting and Brining of Vegetables, M. C. DOERMANN. N. J. Stations Circ. 467 (1943), 8 pp.

Home Preservation of Fruit and Vegetable Juices, J. H. CLARK. N. J. Stations Circ. 468 (1943), 4 pp.

Canning Meats, M. DOERMANN. N. J. Stations Circ. 469 (1943), 4 pp.

Canning at Home, M. C. PFUND. N. Y. Agr. Coll. (Cornell) Exten. Bull. 583 (1943) 63 pp.

Home Preparation of Tomato Products, C. S. Pederson and Z. I. KERTESZ. N. Y. State Sta. Circ. 178, revised (1943), 10 pp.

Home-made Sauerkraut, C. S. PEDERSON. N. Y. State Sta. Circ. 123, revised (1943), 7 pp.

Freezing Vegetables: The Comparative Suitability of Varieties of Green Beans, Lima Beans, Wax Beans, Sweet Corn, and Peas for Freezing Preservation, D. KNOWLES, O. GROTTODDEN, and T. E. LONG. N. Dak. Sta. Bull. 322 (1943), 22 pp.

Methods of Curing Lamb for Farm Family Use in Oklahoma, J. A. BEALL and D. I. PURDY. Okla. Sta. Tech. Bull. 17 (1943), 11 pp.

The Dehydration of Rhode Island Fruits and Vegetables, P. H. DYKSTRA. R. I. Sta. Misc. Pub. 16 (1943), 6 pp. [Processed]

Dehydration of Fruits and Vegetables in the Home, G. A. SHUEY. Tenn. Sta. Bull. 183 (1943), 23 pp.

Development of Methods for Safe Processing of Home Canned Meat, S. COVER, R. D. TURK, and A. H. KERNS. Texas Sta. Bull. 635 (1943), 21 pp.

The Commercial Dehydration of Texas Grown Vegetables. Part I, Preparation, H. M. REED. Tex. Sta. Progress Rept. 855-A (1943), 2 pp. [Processed]

Home Drying of Fruits and Vegetables with the W.S.C. Dehydrator, C. I. BEDFORD, J. B. DOBIE, and L. J. SMITH. Wash. Sta. Popular Bull. 172 (1943), 20 pp.

A Household Budget for Home Preservation of Fruits and Vegetables, E. J. THIESSEN. Wyo. Sta. Progress Rept. (1943), 2 pp. [Processed]

### *Nutritive Value of Foods*

Cantaloupe—Factors Affecting Their Vitamin C Content, M. C. SMITH, L. O. BURLINSON, and A. E. GRIFFITHS. Ariz. Sta. Mimeo. Rept. 53 (1943), 8 pp.

The Carotene and Ascorbic Acid Content of Sweetpotatoes, Ga. Sta. Press Bull. 527 (1943), 4 pp. [Processed]

The Ascorbic Acid Content of Strawberries and Their Products, H. L. MAYFIELD and J. E. RICHARDSON. Mont. Sta. Bull. 412 (1943), 15 pp.

The Carotene and Ascorbic Acid Contents of Peppers, E. M. LANTZ. N. Mex. Sta. Bull. 306 (1943), 14 pp.

The Vitamin A Content of Commercial Butters Sold in Texas, A. R. KEMMERER and G. S. FRAPS. Texas Sta. Bull. 629 (1943), 12 pp.

### *Food Habits and Nutrition Problems*

Riboflavin in Nutrition of Man and Animals, B. SURE. Ark. Sta. Exten. Circ. 427 (1942), 9 pp.

A Study of the Diets of Home Demonstration Club Members' Families in Twenty-Seven Parishes of Louisiana, B. E. BRYSON, C. TUCKER, and H. J. DAVIS. La. Sta. Bull. 356 (1942), 23 pp.

A Study of the Adequacy of Diets Consumed by Grade-School and High-School Students in Louisiana, L. D. COCO, M. MOORE, G. A. GOLDSMITH, G. P. LUCAS, and H. J. DAVIS. La. Sta. Bull. 360 (1943), 10 pp.

The Role of Diet in Blood Regeneration, A. BIESTER and J. M. LEICHSENRING. Minn. Sta. Tech. Bull. 153 (1942), 34 pp.

Blood Plasma Ascorbic Acid Test in Mass Studies in Human Nutrition, J. M. SMITH, M. L. PRESPER, and A. M. MCCORMICK. Pa. Sta. Bull. 432 (1942), 55 pp.

A Contribution to the Study of Nutritional Status in Rural and Urban Populations, P. B. MACK, J. M. SMITH, C. H. LOGAN, A. T. O'BRIEN, M. BAUR, A. H. STEWART, P. DODDS, C. URBACH, E. K. ROSE, L. V. FREEMAN, and D. R. BLEIL. Ellen H. Richards Inst. Research Serv. Pub. No. 2; Pa. State Coll. Bull. 36 (1942), No. 52, 58 pp.

Vitamin A Metabolism and Requirements as Determined by the Rhodometer, E. L. BATCHELDER and J. C. EBBS. R. I. Sta. Bull. 286 (1942), 24 pp.

Rhode Island Food Habits, B. M. KUSCHKE. R. I. Sta. Misc. Pub. 13 (1942), 12 pp. [Processed]

Combating Dietary Deficiencies with Enriched and Fortified Foods, E. J. LEASE, R. C. RINGROSE, and J. G. LEASE. S. C. Sta. Circ. 62 (1942), 8 pp.

The Enrichment of Corn Meal and Grits, E. J. LEASE. S. C. Sta. Circ. 64 (1943), 11 pp.

Corn Meal and Grits—Extent of Consumption and How Cooked in the South: First Preliminary Report, J. MCDILL. S. C. Sta. [unnumbered pub.] (1943), 18 pp. [Processed]

Food Consumption by Farm Families Near Douglas Reservoir, H. J. BONSER and R. L. TONTZ. Tenn. Sta. Rural Research Series Mono. 160 (1943), 44 pp. [Processed]

Food Preferences Among Rural Texans, J. WHITACRE. Tex. Sta. Progress Rept. 854 (1942), 2 pp. [Processed]

The Nutrition of Virginia People as Indicated by the Diets of School Children, G. PARKER. Va. Sta. Rural Sociol. Rept. 24 (1942), 76 pp.

### *Family Economics and Family Life*

Food Habits of Consumer Groups in Small Towns of Alabama That Affect Farmers Markets, J. H. BLACKSTONE and B. T. INMAN. Ala. Sta. Bull. 252 (1942), 68 pp.

Why Produce Your Own Food? R. C. FREEMAN and I. CROUCH. Ill. Sta. Circ. 545 (1942), 8 pp.

The Cost of Living in 172 Kansas Farm Management Association Families as It Relates to the Farm Income, M. A. GUNSELMAN. Kans. Sta. Preliminary Rept. (1942), 22 pp. [Processed]

A Guide to Planning Clothes for the Mississippi Farm Family, D. DICKINS and A. BOWIE. Miss. Sta. Bull. 372 (1942), 27 pp.

Effects of Good Household Management on Family Living, D. DICKINS. Miss. Sta. Bull. 380 (1943), 30 pp.

The Use of Consumer Credit by Missouri Farm Families, M. SPICER, L. A. YOUNG, and S. KORANDO. Mo. Sta. Research Bull. 351 (1942), 19 pp.

Some Effects of the First Year of War upon Nebraska Farm Families, L. H. STOTT. Nebr. Sta. Bull. 348 (1943), 22 pp.

### *Housing*

Investigations in Low Cost Housing, D. G. CARTER. Ark. Sta. Bull. 422 (1942), 46 pp.

### *Textiles*

A Study of Towels and Towelling for Consumer Use, N. G. BENNETT and P. E. KEENEY. Mo. Sta. Bull. 452 (1942), 32 pp.

A Comparative Study of Some Drapery Fabrics Available in 1942 and 1943, P. E. KEENEY. Mo. Sta. Research Bull. 374 (1943), 18 pp.

The Effects of Wartime Measures on Cotton Dress Fabrics, P. E. KEENEY, Mo. Sta. Research Bull. 375 (1943), 19 pp.

Insofar as the publications listed are still available, they may be obtained from the stations issuing them. Further information on the work of the agricultural experiment stations is given in the mimeographed compilation *Research in Foods, Human Nutrition, and Home Economics at the Land-Grant Institutions, 1943–44.* This lists not only the publications of the year (including articles in scientific journals as well as publications of various stations) but also the research projects in progress in home economics and related fields. This compilation may be obtained on request from the Office of Experiment Stations, U. S. Department of Agriculture, Washington 25, D. C.

# *Comment . . .*

## *Chicago Convention*

Yes, we're going to have an AHEA convention next June. It is to be in Chicago with headquarters at the Stevens Hotel, and the time selected is the week before the Republican convention—June 20 to 23, inclusive.

The executive committee of the AHEA, which met in Washington, D. C., from January 17 to 19, decided to have the meeting and roughly sketched its outline for the program committee. After careful weighing of all factors, committee members were convinced that the social good to be achieved by a home economics meeting-of-minds and pooling-of-experience, together with gathering information and inspiration from authorities on national problems, would be sufficiently great to offset the ordeal of wartime travel for home economists and the possibility of competing with military personnel for available accommodations. After all, they reasoned, Uncle Sam can be counted upon to see that nothing interferes with essential movements of troops and supplies!

The executive committee, by the way, is a skeletonized executive board which handles AHEA business between the annual meetings; membership is the same on the board and the committee except that on the latter departments and divisions are represented by one member chosen by the board. On both executive bodies are the elected officers, the president-elect, and headquarters office staff (who have no vote).

State presidents, AHEA executive board members, and regional councilors had been polled before the executive committee meeting, and an overwhelming majority had voted for holding an all-member meeting this year.

Rates will be $3 and up for single rooms, $5 and up for double rooms—with few available at the lower prices. As only a limited number of single rooms will be available at any price, those planning to attend are urged to arrange for roommates.

**Theme and Pattern**

Theme of the session is to be "The Family in the World of Tomorrow." Division and department programs, lacking from the Wartime Institute last summer, will return, though some parts of the program may be patterned after the discussion models used in Maryland. One group which will present a program for the first time at an annual meeting will be the home management specialists; Paulena Nickell of Iowa State College has been given the green light to initiate plans for a session on this field of activity. As this editorial is written, the program committee has not yet been appointed, but the committee will doubtless work within these generous boundaries.

A Youth Congress of home economics student club members will be held the same week as the AHEA meeting, with headquarters also at the Stevens. Representatives of various other youth organizations will be invited to this Congress, to give our club girls the benefit of their experience and to learn what home economics youth has to offer other youth groups.

## *Sinner to Respected Citizen*

Time was when pauperism was treated as a sin to be attacked by repressive measures; in practically every nation anyone so wicked as to require poor relief from the government lost his right to vote and didn't redeem it until he had repaid the relief money. Moreover, the unfortunate person, at least in theory, couldn't get any help from the government until he was actually destitute.

**Social Solidarity**

But gradually there has developed throughout the world a different attitude toward low-income groups and their needs, a recognition

of the fact that modern industrialism has created hazards to life, health, and security with which even the intelligent, thrifty, and industrious cannot always cope successfully—and that when any sizable section of the populace is depressed there is a threat to the welfare and security of the rest.

With the spread of awareness of social solidarity, there has grown a conviction of obligation which has led to the pooling, for social welfare, of an increasing proportion of the resources of individuals in order to guarantee a minimum standard of well-being to all. Also the notion of what constitutes that minimum grows ever richer.

**Minimum Standards of Well-Being**

The eighth annual report of the Social Security Board, released January 17, 1944, illustrates that expanding conception of minimum standards of well-being. It is of interest to members of the AHEA, since in its constitution that organization states one of its three functions to be "to further the best interests of home and family life."

For the first time the Social Security Board advocates providing health and medical care through social insurance, that is, with the insured person contributing to the fund from which he may later need to draw.

The Board's report points out that

> in all parts of the country there are groups whose chances of survival are no greater than those which existed in the United States 60 years ago. Some places . . . especially rural areas, are almost without access to modern facilities to prevent and cure sickness. . . .
>
> Within localities, moreover, sickness varies according to income level. The chance for health, and even for survival, is least among the poor. . . . Wage earners in nonrelief families with annual incomes of less than $1,000 were found to have, on the average, nearly twice as many days of disability during a year as those in families with $3,000 or more. . . . Children in relief families lost nearly a third more time from school or play because of illness than those in families with moderate or comfortable means. It is of little use to argue whether sickness and premature death are more often the cause or the result of poverty; in either case, it is necessary to stop the down-spiral likely to end in demoralization and dependency.

**Others Pioneered**

The compulsory sickness insurance which the Board recommends is not a new idea, of course; it originated in western and central Europe and has spread throughout the world—Australia, Brazil, Chile, Czechoslovakia, Great Britain, Greece, the Netherlands, New Zealand, Norway, the USSR among others.

In most countries the insured person, his employer, and the government all pay into the insurance fund, but there is wide variation as to coverage and as to the per cent of wages which the worker must contribute. In the majority of nations employer and employee pay equal amounts.

In our own Congress, Senate Bill 1161 (HR2861) referred to as the Wagner-Murray-Dingell bill, was introduced last fall to make medical and hospital services available to those covered by past social security legislation and to 20 million additional persons—farm workers; household employees; the self-employed; employees of federal, state, and local governments and of nonprofit organizations; maritime workers; and those in small firms. The American Medical Association and the National Physicians Committee have opposed the bill. On the other hand, the Committee of Physicians for the Improvement of Medical Care, Inc., whose chairman is Dr. Channing Frothingham of the Harvard Medical School, has endorsed the general principles of the bill, as has also the Physicians Forum, another group interested in improving medical care.

**Four False Notions about S1161**

Some of the opposition to the bill traces to misunderstanding. The following are among charges which are false:

(1) That the bill would provide free general medical, special medical, laboratory, and hospitalization benefits for more than 110 million persons in the USA. Actually the bill would require each beneficiary to pay 1.5 per

cent of his wages up to $3,000 a year into the national insurance fund before he and his dependents would be eligible for these services; employers would also contribute 1.5 per cent of their payroll into the central fund.

(2) That the bill aims at or would lead to the abolition of private medical practice. Actually the bill provides safeguards for private medicine and specifies that any doctor can enroll in the federal insurance system or stay out as he chooses. It also provides that any insured person can choose any doctor serving on the insurance panel and that the doctor can accept or reject any patient. In Europe private practice has flourished alongside the national health insurance system.

(3) That the bill would make the Surgeon General of the U.S. Public Health Service, who is named as administrator of the medical and hospital provisions of the bill, a czar with dictatorial rights. Actually the bill provides for democratic methods of determining policy and procedures under which the Surgeon General would proceed.

(4) That it would bring about "the socialization of medicine." Probably few people realize that this "socialization" has been under way ever since the dawn of the Christian era and is already far advanced. The real question is how much further should the socialization go in the interest of national welfare. In 1942, 97 per cent of the beds in mental hospitals and 85 per cent of those in tuberculosis sanatoria were in government hospitals; 48 per cent of the beds in general and special hospitals for acute disease were under some kind of governmental control—state, county, city, or city-county.

By January 31, 1942, a fifth of all physicians in nonmilitary service held salaried positions: 7,216 in teaching positions, research, executive positions, and industry; 9,819 in government service; and 16,457 in hospital service (*Journal of American Medical Association*, June 20, 1942). Add to these, 45,000 or so brought into the armed forces since Pearl Harbor (exact figure a military secret) and you may have between 30 and 45 per cent of our 176,000 physicians on salary—depending on the percentage of those now in the armed forces who were drawn from private practice.

Arguments that a doctor on salary would provide inferior service lose weight when one recalls, for example, the excellent work of salaried physicians in Presbyterian Hospital of the Columbia University Medical Center.

Any thoughtful and informed person will readily concede that much needs to be done before American citizens can be said to have adequate medical and hospital care. The Wagner-Murray-Dingell bill in its present form may not be the best road to that care, but it might well be studied by home economics groups, both state and local, to determine whether it should have AHEA support. Many home economists would at least agree with the Committee of Physicians for the Improvement of Medical Care—that the general principles of the bill should be endorsed.

## *What's a Division?*

What's an AHEA "division"? How does it differ from a "department"? These are questions which puzzle many of our members.

The answer in brief is: Divisions have to do with subject matter; departments, with professional groups which cut across several or all subject-matter divisions. The department of extension, for example, has in it women in each subject-matter division—family relations and child development, foods and nutrition, family economics, housing, and textiles and clothing. Every AHEA member should be listed in one division and one department.

Whenever members have felt that their needs were not adequately provided for in the existing departments and divisions, all they have had to do was to get permission to present a program dedicated to their field at AHEA's annual meeting and then, after giving three such programs, to petition for division or department status. Two groups, related art and home management, are now asking such a change of status.

# *Research . . .*

## *Ascorbic Acid Losses in Cooked Vegetables:*

### *Cooked Uncovered in a Large Amount of Water and Covered in a Small Amount of Water*

MAMIE G. IRESON and MARY S. EHEART

*The research work reported here was carried out by Mrs. Ireson at Virginia Polytechnic Institute, under the direction of Mrs. Eheart, in partial fulfillment of master's degree requirements. Since that time Mrs. Eheart has left VPI and is now associate home economist at the Virginia Agricultural Experiment Station.*

CONSIDERABLE disagreement and confusion have prevailed in teaching what is the best way to cook vegetables so as to retain the largest possible amount of nutrients. A review of the literature indicates that the most important sources of disagreement have been lack of standardization of cooking methods used and the use of too few replications to make it possible to determine whether or not differences are statistically significant.

Most previous reports have been made on from four to eight replications. Fraps and Floyd (*1*) found results which disagreed even within the same study. When 2.5 grams of turnip greens was cooked in 50 milliliters of water they found greater losses of ascorbic acid (vitamin C) in uncovered utensils. However, when 50-gram samples were cooked in larger amounts of water, they found greater losses in covered utensils.

#### Reports on Use of a Lid

Other workers also disagree on the effect of the use of a lid in cooking on retention of ascorbic acid. McIntosh, Tressler, and Fenton (*2*) found that covered pans gave from 8 to 17 per cent lower retentions of the vitamin than did uncovered pans, in 4 cases out of 20 for several vegetables; in the remainder of cases the differences were negligible. Brown and Fenton (*3*) found that parsnips cooked in 500 milliliters of water retained 81 per cent of their ascorbic acid when uncovered and 86 per cent when covered. Barnes, Tressler, and Fenton (*4*) cooked frozen broccoli in 500 grams of water and found that it retained 60 per cent of its ascorbic acid when covered and 57 per cent when uncovered. From these results it may be seen that more work needs to be done using all types of vegetables and a larger number of samples.

#### Reports on Effect of Volume of Water

Reports in the literature also disagree as to the effect of volume of water on cooking losses. Brown and Fenton (*3*) found that parsnips cut in pieces retained 83 per cent of their ascorbic acid when cooked in 750 ml of water, and 81 per cent when cooked in 500 ml. McIntosh, Tressler, and Fenton (*2*) found that cooking in the pressure saucepan caused higher retentions of ascorbic acid than did boiling for Brussels sprouts, cauliflower, lima beans, peas, and spinach and that steaming measurably increased the retention of ascorbic acid over boiling only in the case of Brussels sprouts. McIntosh, Tressler, and Fenton (*2*) found definite decreases in the ascorbic acid content

of cooked cauliflower, lima beans, and peas as the volume of water was increased. Barnes, Tressler, and Fenton (*4*) reported that frozen broccoli cooked in 100, 500, and 1,000 g of water retained, respectively, 82, 57, and 53 per cent of its original ascorbic acid.

Brinkman, Halliday, Hinman, and Hamner (*5*) found, on the other hand, that carrots, snap beans, peas, and cauliflower retained about the same amount of ascorbic acid whether cooked in a larger volume of water according to Halliday and Noble (*6*) or in a waterless cooker. In the cases of shredded cabbage and cubed turnips, more of the vitamin was retained in the waterless cooker.

TABLE 1

*Weight of raw and cooked vegetable, volume of water used for cooking, and cooking time for snap beans, cabbage, and potatoes prepared by the two methods*

| VEGETABLE | WEIGHT OF RAW VEGETABLE | WEIGHT OF COOKED VEGETABLE | | VOLUME OF WATER USED | | COOKING TIME | |
|---|---|---|---|---|---|---|---|
| | | Prepared by Method 1 | Prepared by Method 2 | For Method 1 | For Method 2 | For Method 1 | For Method 2 |
| | *grams* | *grams* | *grams* | *ml* | *ml* | *minutes* | *minutes* |
| Snap beans | 255 | 244.9 | 207.8 | 1020 | 40 | 30 | 30 |
| Cabbage | 240 | 240.4 | 193.7 | 1200 | 40 | 8 | 9 |
| Potatoes | 300 | 297.3 | 296.7 | 900 | 40 | 25 | 21 |

**Conflicting Data in Literature**

In summary, it may be concluded that the data in the literature are conflicting in respect to the effect of the use of a lid in cooking vegetables on the retention of ascorbic acid as well as the effect of varying amounts of cooking water. An important cause of these discrepancies appears to be use of too few replications. In the present study enough replicate cookings were made so that the significance of differences could be measured statistically.

**Cooking Methods Used**

Enough snap beans, cabbage, and potatoes was obtained at one time from the local market for the entire experiment. Each vegetable was refrigerated for the duration of the experiment, usually not longer than four days.

To prepare the vegetables for cooking, the beans had the stems removed but were cooked whole; the cabbage was cut into pieces one-half to three-fourths of an inch in thickness; the potatoes were pared and left whole if small, but were cut in halves if large. The prepared vegetable was mixed thoroughly, and samples were taken for ascorbic acid analysis of the raw and for each of the two cooking methods.

Cooking method number 1 was that recommended by Halliday and Noble (*6*), using rather large quantities of water in an uncovered utensil. Method number 2 was that recommended by an electric utility company (*7*) in which extremely small amounts of water were used in a tightly covered pan. The weight of vegetables, volume of water used for cooking, and the cooking time are given in table 1. Tap water was used throughout the experiment. All cooking was done in 2½-quart pans and with 6 g salt for each lot.

**Ascorbic Acid Determination**

The ascorbic acid content of the raw and cooked vegetables and of the cooking water was determined by the Thornton modification (*8*) of the Bessey and King (1933) indophenol titration. The samples for ascorbic acid analyses were placed immediately under 0.35 per cent oxalic acid in a mortar. Kline (*9*) had shown that a 0.35 per cent oxalic acid solution was as effective as a metaphosphoric acid solution in preventing the oxidation of ascorbic acid. All samples were ground with the acid, made to a volume of 250 ml, and filtered

through glass wool. Aliquots were taken for titration with the indophenol solution.

**Statistical Analyses**

Twelve replicates were made for each method of cooking and for the raw samples so that statistical analyses could be applied to the results. The significance of differences between two means was determined by the "t" test. The formulae used (*10*) to obtain the "t" values were:

$$S = \sqrt{\frac{\Sigma(X_1 - X_2)^2 - \frac{(T_1 - T_2)^2}{N}}{N - 1}};$$

$$S_{\bar{x}} = \frac{S}{\sqrt{N}}; \qquad t = \frac{\bar{X}_1 - \bar{X}_2}{S_{\bar{x}}}$$

The five per cent level for the corresponding values of "P" (probability) was used for significance and the one per cent level for high significance.

**Results**

The amounts of ascorbic acid retained by snap beans, cabbage, and potatoes cooked by the two methods as compared with the ascorbic acid content of the raw vegetables are given in table 2. The average ascorbic acid content of 255 g of raw snap beans was reduced from 22.50 mg to 12.95 mg when cooked by method 1 (1020 ml of water) and to 13.24 mg when cooked by method 2 (40 ml of water). The difference between these two means for the cooked beans was insignificant since the value of "P" was > 0.5596.

The average ascorbic acid content of 240 g of raw cabbage was reduced from 112.00 mg to 60.11 mg when method 1 was used (1200 ml of water) and to 93.59 mg when cooked by method 2 (40 ml of water). The difference between these two means for the cooked cabbage was highly significant since the value for "P" was < 0.0002.

TABLE 2

*Ascorbic acid retained in snap beans, cabbage, and potatoes after cooking by the two methods*

| REPLICATE SAMPLE NUMBER | SNAP BEANS | | | CABBAGE | | | POTATOES | | |
|---|---|---|---|---|---|---|---|---|---|
| | Ascorbic Acid in 255 Grams Raw Beans | Ascorbic Acid in Those Cooked by Method 1* | Ascorbic Acid in Those Cooked by Method 2† | Ascorbic Acid in 240 Grams Raw Cabbage | Ascorbic Acid in That Cooked By Method 1* | Ascorbic Acid in That Cooked by Method 2† | Ascorbic Acid in 300 Grams Raw Potatoes | Ascorbic Acid in Those Cooked by Method 1* | Ascorbic Acid in Those Cooked by Method 2† |
| | mg | mg | mg | mg | mg | mg | mg | mg | mg |
| 1 | 22.55 | 10.90 | 13.90 | 98.69 | 58.78 | 94.27 | 44.12 | 31.11 | 25.35 |
| 2 | 28.53 | 15.25 | 9.63 | 97.82 | 51.64 | 79.47 | 23.92 | 35.84 | 25.16 |
| 3 | 20.40 | 12.59 | 17.74 | 124.61 | 65.29 | 128.32 | 44.65 | 21.28 | 25.01 |
| 4 | 23.63 | 6.30 | 12.65 | 140.16 | 73.39 | 109.14 | 25.45 | 25.29 | 30.15 |
| 5 | 19.33 | 7.95 | 15.45 | 101.03 | 52.19 | 83.02 | 23.28 | 32.11 | 27.43 |
| 6 | 18.87 | 13.19 | 11.78 | 105.32 | 55.08 | 91.11 | 27.07 | 32.11 | 28.26 |
| 7 | 34.52 | 7.68 | 11.08 | 113.02 | 57.75 | 90.93 | 35.25 | 40.23 | 34.44 |
| 8 | 19.91 | 10.87 | 12.89 | 119.02 | 68.20 | 104.06 | 34.71 | 35.74 | 32.74 |
| 9 | 25.37 | 15.63 | 14.51 | 119.12 | 62.34 | 94.62 | 39.59 | 23.90 | 34.93 |
| 10 | 15.09 | 29.46 | 10.54 | 106.09 | 61.65 | 82.46 | 43.03 | 35.11 | 35.01 |
| 11 | 19.91 | 11.97 | 14.26 | 104.36 | 53.15 | 85.69 | 35.76 | 28.88 | 32.54 |
| 12 | 21.84 | 13.54 | 14.47 | 114.77 | 61.86 | 80.03 | 34.65 | 26.19 | 35.07 |
| Mean | 22.50 | 12.95 | 13.24 | 112.00 | 60.11 | 93.59 | 34.29 | 30.65 | 30.51 |
| | | t = 0.1453<br>P = >0.5596 | | | t = 10.547<br>P = <0.0002 | | | t = 0.075<br>P = >0.5596 | |

* In method 1, 1,020 ml, 1,200 ml, and 900 ml of boiling water were used for snap beans, cabbage, and potatoes respectively, in an uncovered utensil.

† In method 2, 40 ml of water was used for each vegetable in a tightly covered utensil.

The 300 g lot of raw potatoes contained on the average 34.29 mg of ascorbic acid, while after cooking by method 1 (900 ml of water) the lots averaged 30.65 mg, and after cooking by method 2 (40 ml of water), 30.51 mg. This difference between the two methods was insignificant since the "P" value was $> 0.5596$.

Thus, only in the case of cabbage was it found that the cooking method made a significant difference in the retention of ascorbic acid. By using 1200 ml of water for cooking cabbage only 53.67 per cent was retained while 83.56 per cent was retained when 40 ml of water was used in a tightly covered pan.

This difference in retention of ascorbic acid in cabbage when large and small amounts of water were used was also found by Brinkman, Halliday, Hinman, and Hamner (*5*). These authors found 40 per cent of the original ascorbic acid in shredded cabbage cooked by the Halliday and Noble (*6*) procedure and 61 per cent in that cooked in a waterless cooker.

In the present study the method of cooking snap beans made no significant difference in the retention of ascorbic acid since 57.55 per cent was retained when 1,020 ml of water was used and 58.84 per cent when 40 ml was used.

These retentions are similar to those of Mack, Tapley, and King (*11*), who found that Refugee and Kentucky Wonder beans retained 53 and 56 per cent, respectively, of their original ascorbic acid content when cooked 27 and 24 minutes by the procedures given by Halliday and Noble (*6*). Brinkman, Halliday, Hinman, and Hamner (*5*) also found about the same retention of ascorbic acid, 51 per cent, in snap beans which had been broken in two or three pieces and cooked by the method recommended by Halliday and Noble (*6*).

In the present study, no significant difference in retention of ascorbic acid was noted for potatoes cooked by the two cooking methods, for 89.38 per cent was retained when 900 ml of water was used and 88.98 per cent when 40 ml was used.

The distribution of ascorbic acid cooking losses between oxidation and solution is given in table 3. Since only negligible amounts of cooking water remained when the vegetables were cooked by method 2 (40 ml of water), no analyses of the water were made.

The greatest part of the loss of ascorbic acid from cooking beans was by oxidation, since only 1.60 mg or 7.11 per cent remained in the cooking water from method 1. Thus, 7.95 mg or 35.33 per cent of the vitamin was oxidized by method 1 and 9.25 mg or 41.11 per cent by method 2. These amounts oxidized were not significantly different since the value for "P" was 0.5596.

In cooking cabbage, the greatest loss was brought about by solution, since 41.84 mg of ascorbic acid or 37.36 per cent was found in the cooking water from method 1, while only 10.05 mg or 8.97 per cent was oxidized by method 1 and 18.41 mg or 16.44 per cent by method 2. Method 2 caused significantly higher oxidation of the vitamin than method 1 since the value for "P" was 0.0022.

In the case of potatoes, losses were small and about equally distributed between solution and oxidation. The cooking water contained 1.70 mg or 4.96 per cent of the vitamin while 1.94 mg or 5.66 per cent was oxidized by method 1 and 3.78 mg or 11.02 per cent by method 2. The difference in oxidation by the two methods was not significant.

The contribution of snap beans, potatoes, and cabbage, cooked by the two methods, to the daily requirement for ascorbic acid (75 mg for a 70 kilogram man) was also calculated. An average serving of beans provided only 3 to 4 mg of ascorbic acid when cooked by either method; a serving of potatoes gave only about 8 mg of the vitamin, cooked by either method; a serving of cabbage gave far the largest amounts—that cooked in a small quantity of water, 29 mg of ascorbic acid and that cooked in a large quantity of water, 15 mg. Thus, cabbage cooked in a small quantity of water was almost twice as high in ascorbic acid as that cooked in a large quantity. The difference in the ascorbic acid content of cabbage cooked by the two methods is greater when calculated on the per serving basis than on

total lots because vegetables cooked in a small quantity of water weighed less than those cooked in a large quantity.

Obviously, from these results, the important factor in determining the effect of quantity of cooking water on retention of ascorbic acid is the preparation of the vegetable. In the cases of snap beans and potatoes, left whole or in large pieces, there were no differences in losses of ascorbic acid due to volume of water used.

However, in the case of cabbage, which was cut into small pieces with much surface exposed, the large quantity of water caused significantly more loss of the vitamin than did a small quantity of water, primarily because of resultant losses in solution. Wellington and Tressler (*12*) found that shredded cabbage retained only 22 per cent of its original ascorbic acid content when boiled, while strips of cabbage retained 32 per cent and quarters 38 per cent. They also found that the most ascorbic acid, 66 per cent, was retained when cabbage was panned, with no water used. Their results substantiate the fact that the amount of loss due to solution in cooking depends on the preparation of the vegetable.

TABLE 3

*Ascorbic acid lost in cooking snap beans, cabbage, and potatoes by the two methods*

| Duplicate sample number | SNAP BEANS | | | | CABBAGE | | | | POTATOES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ascorbic Acid in 255 Grams Raw Beans | Ascorbic Acid Losses from Those Cooked by Method 1* | | Ascorbic Acid Losses by Oxidation from Those Cooked by Method 2† | Ascorbic Acid in 240 Grams Raw Cabbage | Ascorbic Acid Losses from That Cooked by Method 1* | | Ascorbic Acid Losses by Oxidation from That Cooked by Method 2† | Ascorbic Acid in 300 Grams Raw Potatoes | Ascorbic Acid Losses from Those Cooked by Method 1* | | Ascorbic Acid Losses by Oxidation from Those Cooked by Method 2† |
| | | In Cooking Water | Oxidized | | | In Cooking Water | Oxidized | | | In Cooking Water | Oxidized | |
| | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* | *mg* |
| 1 | 22.55 | 0.60 | 11.05 | 8.65 | 98.69 | 34.93 | 4.98 | 4.41 | 44.12 | 1.24 | 11.77 | 18.77 |
| 2 | 28.53 | 1.75 | 11.53 | 18.90 | 97.82 | 37.57 | 8.61 | 18.35 | 23.92 | 2.70 | +14.63 | +1.24 |
| 3 | 20.40 | 0.87 | 6.95 | 2.66 | 124.61 | 54.02 | 5.29 | +3.71 | 44.65 | 0.93 | 22.44 | 19.64 |
| 4 | 23.63 | 1.23 | 16.09 | 10.98 | 140.16 | 47.95 | 18.82 | 31.03 | 25.45 | 1.75 | +1.59 | +4.70 |
| 5 | 19.33 | 0.83 | 10.55 | 3.88 | 101.03 | 37.93 | 10.90 | 18.01 | 23.28 | 1.72 | +10.56 | +4.15 |
| 6 | 18.87 | 1.62 | 4.05 | 7.09 | 105.32 | 41.18 | 9.05 | 14.20 | 27.07 | 2.67 | +7.71 | +1.19 |
| 7 | 34.52 | 1.75 | 25.08 | 23.44 | 113.02 | 43.69 | 11.58 | 22.10 | 35.25 | 1.32 | +6.30 | 0.81 |
| 8 | 19.91 | 1.79 | 7.25 | 7.02 | 119.02 | 44.28 | 6.53 | 14.96 | 34.71 | 2.89 | +3.91 | 1.97 |
| 9 | 25.37 | 1.45 | 8.29 | 10.85 | 119.12 | 48.31 | 8.47 | 24.49 | 39.59 | 1.78 | 13.92 | 4.66 |
| 10 | 15.09 | 2.14 | +16.51 | 4.55 | 106.09 | 35.82 | 8.63 | 23.63 | 43.03 | 1.67 | 6.25 | 8.02 |
| 11 | 19.91 | 2.34 | 5.60 | 5.65 | 104.36 | 41.44 | 9.77 | 18.67 | 35.76 | 0.87 | 6.01 | 3.23 |
| 12 | 21.84 | 2.85 | 5.44 | 7.37 | 114.77 | 35.01 | 17.90 | 34.75 | 34.65 | 0.84 | 7.62 | +0.42 |
| Mean | 22.50 | 1.60 | 7.95 | 9.25 | 112.00 | 41.84 | 10.05 | 18.41 | 34.29 | 1.70 | 1.94 | 3.78 |
| | | t = 0.613 | | | | t = 3.962 | | | | t = 0.915 | | |
| | | P = 0.5596 | | | | P = 0.0022 | | | | P = 0.3858 | | |

* In method 1, 1,020 ml, 1,200 ml, and 900 ml of boiling water were used for snap beans, cabbage, and potatoes, respectively, in an uncovered utensil.

† In method 2, 40 ml of water was used for each vegetable in a tightly covered utensil.

**Summary**

Snap beans, cabbage, and potatoes were cooked in a large volume of water in an uncovered utensil and compared for ascorbic acid content with those cooked in a small amount of water in a tightly covered utensil. It was found that the volume of water used in cooking did not cause a significant difference in ascorbic acid losses for the beans and po-

tatoes, which were cooked whole or in large pieces. In the case of cabbage, cut into pieces one-half to three-fourths of an inch thick, the loss of ascorbic acid was increased from about 16 per cent for a small amount of water to 46 per cent for a large quantity of water.

Cabbage cooked in the smallest possible amount of water contained about 29 mg of ascorbic acid in an average serving, or more than one-third of an adult man's requirement. One serving of snap beans or potatoes, cooked by either method, would furnish only from 5 to 10 per cent of the daily requirement.

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## *A New Way of Drying Foods*

Almost all vitamin C in foods is saved by drying them in a natural gas atmosphere. Then the "atmosphere" is burned as fuel to help heat the dehydration unit. This new method promises marked improvement over air-dehydration in which 50% or more of the vitamin C is likely to be lost. . . .

Potatoes dried by this new method come out perhaps four times as rich in ascorbic acid as those dehydrated in air, since the natural gas atmosphere prevents destructive oxidation, rather than encourages it.

Foods dried in natural gas are not affected in color or taste. . . .

In commercial operation, it is planned to use the natural gas over and over again, adding fresh gas only to the extent needed to prevent the system from accumulating more than 0.1% of oxygen. . . . This provides considerable saving since studies show that all the discarded gas can be used immediately as fuel, so that the new method increases costs very little.

Tests on green leafy animal feeds indicate that foods dried in a natural gas atmosphere will also keep longer than those dehydrated conventionally.—"Drying Foods in Gas Saves Nearly All Vitamin C," *Science News Letter*, November 20, 1943.

# *Association Business . . .*

## *Elementary and Secondary Schools Department*

One item on our program of work for 1943–44 is "Prepare suggestions for action on health education for teachers of home economics to implement the Office of Education's bulletin 'Physical Fitness Through Health Education for the Victory Corps.'"

The following suggestions, therefore, have been prepared. For more suggestions, see the January 3, 1944 *Education for Victory*, official biweekly of the U. S. Office of Education.

**Safety, Emergency Care, Sanitation**

(1) Find out how many home accidents occurred in the nation last year, how many in the students' own community. Check home construction, furnishings, equipment, household arrangements, and unsafe habits to determine causes and prevent recurrence by removing causes.

(2) Direct students in making simple equipment which can be improvised at home for care of the sick—such as inhalers, sprays, and back rests.

(3) Outline a plan to care for and clean a sickroom with the least disturbance to the patient; make daily and weekly schedules.

(4) Plan with students an "all out" home campaign against flies and mosquitoes.

(5) Lead students to make any needed improvements in home and school garbage disposal.

**Mental Health, Recreation**

(1) Direct students in planning and carrying out a schedule to improve their management of time, so as to meet the responsibilities of home and school.

(2) Lead students to compare and evaluate purposes and responsibilities for family members. Determine ways of sharing family living through leisure-time experiences, through co-operative decisions about sharing rooms and family possessions, such as cars and radios; and through new responsibilities for work in the home.

(3) Find leisure activities for the family as a whole and for individual members which may result in happier family life. Study available books to determine which would be of interest to senior high school girls and boys. Choose a committee to make arrangements for the librarian to place these books grouped together on a shelf.

(4) Study recreation needs and develop a school lending library of family games, such as Chinese checkers and jig-saw puzzles, and plan for class responsibility in checking games in and out.

**Child Care**

(1) Have students read and report on articles about the effect of war on children, then consider (a) what the students will need to learn about the growth and development of children; (b) what abilities they will have to develop if they are to help keep little children healthy and happy in spite of war.

(2) Learn what authorities say about the place of play in child training and what toys and play equipment are best for different ages.

(3) Observe children on playgrounds, in child care centers, and at play in their own homes as a further basis for making inexpensive toys and play equipment to give to play centers.

**School Feeding**

(1) From many sources collect information as to the nutrition status of the community. Encourage pupils to help correct undesirable food habits by writing articles for the school and local papers, preparing plays, making posters, having home gardens, and analyzing their own food habits.

(2) Find out how mothers are adapting and planning for family food needs by inviting some of them to discuss this with the class.

(3) Have a school-lunch committee of students and teachers from several departments of the school to consider the present school-lunch program and possibility for more adequately meeting the pupils' food needs.

(4) With student aid, set up school milk and fruit bars to displace bottled drinks and candy.

(5) Give special attention to the lunch brought from home and to food purchases made at school.—LELIA MASSEY, *Chairman*.

# *Home Economics in Business Department*

Increasing activity on membership promotion, vocational guidance, and home safety characterized this year's program of work among the 18 local groups in the department. Work in nutrition education continues in all groups, and considerable support has been given to the national Food Fights for Freedom program.

At the request of President Jessie W. Harris and the War Food Administration, the HEWIB's are concentrating on the spring campaign on "no point—low point" foods. Special meetings for HEWIB's have been held by the WFA in Los Angeles, San Francisco, Chicago, and New York.

This year there are national chairmen for nutrition, vocational guidance, home safety, textiles, and legislation, as well as membership and program of work. Most local groups have chairmen to co-operate with these national committee chairmen.

### The Southern Group

The southern group has been especially active this year on the nutrition front and in the Food Fights for Freedom program. Southern home service women in the utilities are carrying on active schedules covering conservation of appliances, food, and fuel. One company has appointed six specialists to help customers with postwar planning and equipping of their homes as well as with making equipment now in use last longer and yield greater efficiency.

### Chicago, Southern California, Minneapolis

The busiest group is that in Chicago where every one of its 135 members serves on some committee. Their plans for the year parallel the department's program of work in promoting AHEA membership, co-operating with state and local nutrition committees, sharing in the national and state textile program, working on home safety and vocational guidance. Successful work has been done for servicemen through the USO.

The contribution of the southern California group to the nutrition program was recognized in a request of the California State War Council Food and Nutrition Committee for a copy of their program to show to Governor Warren. In April a Field Day is planned for college students interested in home economics in business. The programs of the Boston group have been planned around nutrition and home safety, while in Detroit the emphasis has been on Red Cross nutrition work, canteen classes, and USO.

Minneapolis HEWIB's presented a series of food demonstrations for businesswomen's clubs and shared in radio food demonstrations sponsored by the Red Cross Nutrition Class of the Air.

### St. Louis, New York HEWIB's

St. Louis HEWIB members serve on the coordinating committee of the OCD Nutrition Council, on the food conservation committee, and on the educational materials committee; have given radio talks for the Nutrition Council; and have taught Red Cross nutrition and canteen classes.

The New York City businesswomen have a wartime activities committee which is working on a long-range program involving postwar planning. A community war service committee has been set up by the District of Columbia organization to ascertain how members as individuals or a group can be most useful.

A special effort is being made this year to increase membership in the "orphans" group by seeking out home economics women in the business field who are out of reach of local groups. Individual members report interesting nutrition classes for Camp Fire Girls and Girl Scouts.

### Other Sections

Cleveland and Philadelphia groups are concentrating on programs to interest their own and prospective members. In Milwaukee, one meeting was scheduled to discuss safety in the home; another, agricultural postwar planning. The Pittsburgh group co-operated actively with the dietitians during the ADA meeting.

The Seattle group helped recruit Army dietitians by devoting one program to this service; another program was on women in defense. The Portland (Oregon) group's chief activity has been establishing five nutrition centers which have distributed thousands of pieces of literature.

The Kansas City section has actively promoted joint meetings of all branches of home economics in its vicinity. The newly organized vocational committee is also active.—MARIE SELLERS, *Chairman.*

# *New Books . . .*

***The Road We Are Traveling, 1914-1942.*** By STUART CHASE. New York: Twentieth Century Fund, 1942, 106 pp., $1.

***Goals for America: A Budget of Our Needs and Resources.*** By STUART CHASE. New York: Twentieth Century Fund, 1942, 134 pp., $1.

***Where's the Money Coming From?*** By STUART CHASE. New York: Twentieth Century Fund, 1943, 179 pp., $1.

It has been said that Mr. Chase has the capacity to make facts, figures, and principles take fire and glow with meaning. Here is ample evidence.

In the first volume he sets forth reasons why the world is in deep trouble today and gives a vivid, swiftly moving account of changes in the USA since 1913. In the final chapter, he describes the needs and desires of people in a democracy: a job, social security, adequate living standards, hope for the future, and a sense of being part of the community. Finally he states a postwar platform to insure their realization.

The second volume discusses standards for community survival in the postwar world: adequate military protection, the abolition of chronic unemployment, the establishment of minimum standards of well-being for the entire population, and natural resources held at par.

The chapters in which he considers a minimum standard in food, shelter, clothing, health, and education sharpen the meaning of the "freedom from want" concept.

Volume 3 answers the question: Where's the money coming from? Money for the colossal war outlays of the warring nations came chiefly from the labor of people hitherto unemployed. Full peacetime employment can also be achieved and is necessary to the achievement of all other postwar goals. We have "nothing to fear but fear."—LUCILE W. REYNOLDS, *U. S. Extension Service.*

***The Pocket Book of Home Canning.*** By ELIZABETH BEVERIDGE and the HOME SERVICE CENTER OF THE WOMAN'S HOME COMPANION. New York: Books, Inc., 1943, 138 pp., $0.25.

***Home Canning Made Easy.*** By MIRIAM WILLIAMS. New York: The Macmillan Company, 1943, 122 pp., $1.50.

***Canning, Preserving and Jelly Making.*** By JANET MCKENZIE HILL. Revised by SALLY LARKIN, with a preface by MARJORIE MILLS. Boston: Little, Brown and Company, 1943, 143 pp., $1.75.

***Food Planning for Victory: Kitchen Strategy.*** By MADELINE FESS MEHLIG. New York: Wilcox & Follett Co., 1943, 131 pp., $1.29.

There is a tendency to believe that the popular interpretation of "home canning" includes everything from canning itself to brining, salting, and drying. The books by Beveridge and Hill devote about half of their space to home canning; the remainder largely to salting, pickling, making jellies and jams, and drying. The book by Beveridge even includes storage and two pages on quick freezing, although these two pages are hardly, as the cover page describes, "complete instructions" for this method of handling food.

If the word "pickling" had been added to Hill's *Canning, Preserving and Jelly Making*, the title would have been satisfyingly complete.

All three authors handle the subject of food preservation well—each in her own inimitable fashion. The three books are well indexed.

Only 25 pages of *Food Planning for Victory*, that is one sixth, are devoted to canning; it has no index, but the table of contents is detailed.

The *Pocket Book* is informal, cheery, and chatty. It is illustrated with amusing as well as pertinent sketches. The little pages have much up-to-date information packed between the cardboard covers. The "Memos to Me" are a real help. Meat and fish are purposely omitted as few families have surpluses of these foods.

*Home Canning Made Easy* is illustrated with effective, informative sketches. The two chapters on equipment and methods are well thought out and would be useful to beginners. A few more precautions on cold-water canning and on oven canning would be helpful. Many persons would agree with the author that "the chief role of home-dried food is to add variety to our meals."

*Canning, Preserving and Jelly Making* is unique in its presentation. What homemaker wouldn't be intrigued by the thoughts of preservation when four of six chapter headings read: "Spring Treats," "Full Summertide," "Harvest Peak," and "Winter Specialities"? They really are arranged that way, which lures one on into the next chapter. It will be fun to use this book.

*Food Planning for Victory* is illustrated with imaginative, exceedingly amusing sketches. Canning is not given up-to-date treatment as in the other three books, nor is the material as competently handled. The vegetable chapter is not well organized. There are frequent ambiguous and incorrect statements. Its greatest contribution would appear to be in the last half of the book in which one finds timely chapters on "Meal Planning to Keep Points and Costs Down," "Wartime Cookery," and "Post-War Planning" (on foreign dishes).—MARION C. PFUND, *Cornell University.*

***You'll Eat It Up: A Menu for Every Day and Every Occasion.*** By CHARLOTTE ADAMS. New York: M. Barrows and Company, Incorporated, 1943, 308 pp., $2.50.

The author says that by deliberate intention this is not a war cookbook. She feels that food prices and ingredients obtainable are changing so rapidly that such information will have to come from current newspapers and magazines.

The first part of the book consists of low- and medium-cost menus for spring, summer, fall, and winter, with a shopping list for each menu. The rest of the book is given over to recipes. Recipes are clearly written but are not designed for the beginner.—NINA BROWNING, *Kansas State College.*

***Double Quick Cooking for Part Time Homemakers.*** By IDA BAILEY ALLEN. New York. M. Barrows and Company, 1943, 241 pp., $2.

This timely kitchen guide should appeal to housewives who are doing wartime jobs or are short of help. It includes advice on arranging the kitchen to eliminate nonessentials and suggestions for selecting quick cooking utensils.

Menus show how best to use rationed and unrationed foods. Short cuts to meal planning, cooking, and serving are suggested. Meat substitutes, alternates, and extenders are explained. —NINA BROWNING, *Kansas State College.*

***Cook It in a Casserole.*** By FLORENCE BROBECK. New York: M Barrows and Company, Inc., 1943, 181 pp., $2.

The author believes casserole cookery to be especially adapted to our present home situation as there is a shortage of time, labor, and metals formerly used for pots and pans.

Menus and recipes using the casserole dish as the main part of the meal are suggested. Recipes for salads and desserts to accompany the casserole meal and a brief discussion of the preparation of tea and coffee are included.—NINA BROWNING, *Kansas State College.*

***Managing Your Mind: You Can Change Human Nature.*** By S. H. KRAINES and E. S. THETFORD. New York: The Macmillan Company, 1943, 374 pp., $2.75.

A psychiatrist who is also a physician collaborated with a psychologist to produce this book which explains why so many persons fail to reach the goal of happiness and how they can manage their minds so as to achieve that goal.

The writers point out how essential is health of the total organism—mind and body—and declare that a major cause of human suffering is tension, arising because the nervous system automatically prepares a person to run or fight after the cortex signifies that the stimulus is dangerous. This response hinders modern man in coping with dangers in his environment. Man must learn how to do less automatic responding and more thinking if he is to be successful in his quest for health and happiness.

A wealth of convincing material is given on how emotional states bring about both psychological and physical symptoms. Cases are reported in which symptoms disappeared when the pattern of actions, thoughts, and feelings was changed.

The book is sound and will be of value to many people because it gives in readable, nontechnical language an insight into the mechanism by which emotions cause physical and psychological symptoms and the extent to which man can control his actions, thoughts, and feelings and thereby find life a happy, satisfying adventure.—JENNIE WILLIAMS, *Kansas State College.*

***Bringing Up Ourselves.*** By HELEN GIBSON HOGUE. New York: Charles Scribner's Sons, 1943, 162 pp., $1.50.

This is a delightful book for the layman who wants to know why people behave as they do. The author's varied experiences with people have given her keen insight into and a positive approach to personality development. Throughout the book she gives everyday experiences to illustrate her theme that an individual with a healthy personality is one who has found satisfying relationships with his environment.

"Every human being has two fundamental needs: one is for affection, the other is for recog-

nition." These needs seem to be the key to "warped personalities" which "can defeat fine principles."

If we understand better our everyday relationships, we can make more valuable contributions to democracy through pleasant relationships with fellow workers. Too, this understanding has its dividends in the fact that "all of us tend to accept the ideas of people whom we like and to reject the ideas of people whom we dislike."

I sincerely think (or since, as the author says, we do about 2 per cent thinking and 98 per cent feeling, perhaps I should say "feel") that the book is a practical approach to the everyday problems of human relationships.—HELEN A. MIES, *University of Illinois.*

***Personal Problems and Morale.*** By JOHN B. GEISEL. Boston: Houghton Mifflin Company, 1943, 435 pp., $1.80.

This book is written in intimate and frank style peculiarly adapted to the type of youth that assumes a sophisticated front but in reality is wanting to know the why and how of things.

The problems discussed are those of every age. Cases are discussed and lines of action are set up with perhaps more references listed than the average reader would pursue.

Illustrations from life and pertinent cartoons lend interest and clarification. Problems listed for class discussion are similar to those in other texts and could be dispensed with, as a live group of students would set up their own problems. Information is given in easy style. For class study an hour a day for about six weeks would cover the subject matter, with investigation of some problems running longer than one period. The book is divided into three sections: (1) Knowing more about yourself, (2) Getting along with others, and (3) Making your way in time of war. The latter section is given over to vocational guidance.

Everyone seeking assistance in personality adjustment will find this a helpful book.

When I tried the text out with high school seniors in San Antonio (an important military and defense center) it was received with thoughtful consideration—especially those parts related to fear, what to believe in, and when to follow a leader. A cartoon about conduct in a theater brought excellent discussion of morals and social standards in defense plants and in social centers for those in the armed forces. No mention of this topic is made by the author.

The book could be used best as a source book or a leader's manual in the study of human relationships.—NELL KRUGER, *South San Antonio High School.*

***Sex in Marriage.*** By ERNEST R. GROVES and GLADYS HOAGLAND GROVES. New York: Emerson Books, Inc., 1943, 224 pp., $2.

Changing attitudes which recognize the significance of sexual adjustment in marriage, the general acceptance of the usefulness of books and articles for the guidance of newlyweds and new knowledge of sex in all its complexities are reasons given by the authors for this revision of a book published first in 1931.

Chapters deal with the relation of sex to happiness; the background of experience, knowledge, and attitudes which each partner brings to the marriage; the role each plays in a satisfactory sex adjustment; and planned parenthood.

Simplicity, clarity, and directness characterize the writing. As in other works by these authors, the best scientific knowledge available forms the foundation for the advice given.

Since only the sexual side of marriage is considered, young couples seeking help in planning for a successful marriage will want other material to supplement that given in this book.

A brief (and inadequate) list of books for supplementary reading is included.

Though the book has value, it impresses this reviewer as definitely inferior to an earlier publication, *Sex Fullfillment in Marriage,* on which the senior author, Ernest R. Groves, collaborated with his daughter, Catherine.—MRS. BLANCHE H. RAFFERTY, *Canton, Illinois.*

***Your Career as a Food Specialist.*** By DOREE SMEDLEY and ANN GINN. New York: E. P. Dutton & Co., Inc., 1943, 199 pp., $2.50.

The book runs the gamut of food careers from cafeteria managers and dietitians on to teachers and writers of radio scripts, newspaper columns, and magazine articles. Biography, anecdotes, photographs serve to enliven the informative material.—H. P. H.

***Gardening for Good Eating.*** By HELEN MORGENTHAU FOX. New York: The Macmillan Company, 1943, 262 pp., $2.50.

Long residence in Europe, a Vassar education, marriage to a landscape painter, work in the New York Botanical Gardens, and 30 years of gardening provided rich background for Mrs. Fox's interesting, practical book on gardening.—H. P. H.

# *Abstracts . . .*

## EDUCATION

Contributed by Margaret Ritchie and Lucille Magruder, University of Idaho

**Education after the war,** H. HARAP. *Secondary Educ. Quart. Bull.* **11**, No. 5 (Sept.–Oct. 1943), pp. 1–3.

We should evaluate some of the changes which have been introduced with a view to planning the redirection of public education after the fighting is over.

(1) Emphasis on physical fitness should be continued. The stage is now set for the prevention of much sickness and inefficiency due to malnutrition.

(2) All high school students need continuous study of the application of mathematics and science to the activities of home and community life, planned in accordance with their individual needs.

(3) Preflight aeronautics should have a permanent place in the curriculum, for aviation and air transportation will play an important role in the postwar world.

(4) Consumer education, which has been widely introduced into the secondary schools because of scarcity of supplies, rationing, and price control should be continued, for as a nation we are notoriously wasteful.

(5) Better understanding of the need for international co-operation will be required for the rebuilding of peace.

(6) Vocational education in the secondary schools must prepare students for the new industrial development.

(7) We should give students an opportunity to learn democratic living in the classroom by pupil-teacher planning, sharing in making decisions and evaluating in order to make them free people. They should have a part in choosing goals and in learning how to accomplish them and to make contributions to the group. They will have to learn respect for each other as individuals and respect for the decisions of the whole group.

(8) Community projects must be continued as a means of vitalizing classroom work. Lessons learned from wartime community work which developed into purposeful, continuing activities must not be forgotten. Teachers and pupils have experienced informal, lifelike learning directed toward an understandable goal.—L. M.

**Adult education for victory and peace,** P. H. SHEATS. *J. Educ. Sociol.* **17**, No. 1 (Sept. 1943), pp. 28–35.

Adult education, as a professional movement, is still in the pioneer stage, subject to much of the confusion of frontier life. Functional literacy, long-time goal of adult education, is not enough, although reduction of adult illiteracy still needs to be emphasized.

The program must be expanded if a better informed citizen participation in community affairs is to be achieved. Only by extension of knowledge can we build understanding between diverse groups and close the tremendous gap between the intellectually rich and the intellectually poor.

Adult education must devise means of securing more general application of the expert knowledge of researches in physical and social sciences and more scientific methods for the management of public affairs. The ingenuity of educators is challenged to devise ways of popularizing knowledge and of providing new adult education opportunities.

Wartime trends strengthen the conviction that mass education will play an important role in the development of a world system in which freedom and justice can prevail.—M. R.

**Education as growth,** B. H. BODE. *Educ. Forum* **18**, No. 1 (Nov. 1943), pp. 5–10.

The perennial problem of education—purpose—takes on new significance in connection with postwar planning. Clarification of educational purposes is somewhat more difficult in a democracy than in authoritarian systems.

If man is the basic point of reference, as is consistent with democratic thinking, consideration must be given to the concept of growth as essential to planning an effective educational program.

When schools assume responsibility for promoting a specific type of growth by imposing a pattern,

complete social control may result. Education may also produce other undesirable reactions, if the idea of growth is used chiefly as justification for individualistic procedures.

Recognition of growth as a basis for social organization gives broader meaning to this concept in its relation to education. If democratic principles are accepted as standards of conduct, the individual will then be assured of greater opportunities for self-development. Only by interpreting growth in terms of guiding social policy can education serve best in promoting a better understanding of democracy.—M. R.

**The problems of an evaluation program,** L. A. KIRKENDALL. *Educ. Admin. & Superv.* **29,** No. 6 (Sept. 1943), pp. 377–383.

This article contrasts two approaches to measuring pupil growth: evaluation and testing.

Evaluation is concerned with the total personality and with measuring all objectives both tangible and intangible, whereas testing concerns itself with acquiring information or developing skills and with measuring mastery of subject-matter objectives.

Evaluation appraises progress and considers measurements as inseparable from the teaching process; testing implies finality in determining status and use of the test as the end product of teaching. Evaluation reports are in terms of objectives; testing reports, in terms of marks and class standing. Evaluation is concerned with helping the pupil discover his weaknesses and improve himself; testing is preoccupied with the pupil's position in the class and stands as a hurdle to be jumped in order to keep or get status.

Evaluation implies a partnership of teacher and pupil; testing is inherently a process imposed on the pupil by authorities. Evaluation is a device for facilitating learning; testing, a way of determining if the pupil has "done the work."

The author points out the difficulties in setting up and using the evaluation type of procedure, especially if it is not adopted by all the teachers in a system and if the pupils have been "miseducated" by traditional testing methods. He shows also that evaluation requires more time and energy from the teacher than does testing and that the difficulties with the mediocre pupil are greater than with the superior or the poor one.—L. M.

**The adolescent in a world at war,** J. SLAWSON. *Mental Hyg.* **27,** No. 4 (Oct. 1943), pp. 531–548.

Normally adolescents are subject to many conflicts, fears, disillusions, and frustrations. The world is uncertain whether to treat adolescents as children or as adults. Adolescents need to identify themselves with parents and with the age group just above them as a means to establishing ideals. In wartime this identification is disappearing. Young people are frequently stimulated into functioning as adults before they are ready.

Statistics indicate that delinquency has increased as a result of the war. England reports that a marked reduction in delinquency was brought about after people were aware of the situation and took measures to handle it.

The U. S. Children's Bureau has set guides for the successful employment of youth so that work experience will contribute to their educational growth and personality development as well as meet the manpower needs of a nation at war.

Some ways in which the community can help reduce delinquency are: (1) by providing opportunity for participating in the war effort on the home front, (2) by training youth for the war service that will come after they leave school. Seventy-five per cent of British children up to 14 years of age are organized for war service.

Other ways to cope with the problem are (1) by developing foster homes and residence centers and (2) by becoming acquainted with and encouraging movements for socializing laws that have to do with the antisocial conduct of adolescents.

Some problems of the postwar adolescent will be (1) to reorient himself in social values, (2) to build a feeling of hope and trust, (3) to cope with aggressions due to delayed education, (4) to cope with hate implanted by war, (5) to work out a philosophy of life which will give purpose to the struggles everyone will have after the war, (6) to foster democracy and ensure development into mentally and emotionally healthy adults.—L. M.

# FAMILY ECONOMICS

Contributed by Sadye Adelson, Dorothy N. Chellis, Faith Clark, Lucile F. Mork, and Jean L. Pennock of the Family Economics Division, Bureau of Human Nutrition and Home Economics

**Income of farm families,** D. S. BRADY and M. J. HAGOOD. *Agr. Situation* **27**, No. 8 (Aug. 1943), pp. 9–11.

The share of total net cash income received by each tenth of the nation's farm operator families in 1941 and 1942 was estimated on the basis of information secured from the study of Rural Family Spending and Saving in Wartime (BHNHE) and changes in over-all farm income aggregates for 1941 to 1942. The median income in 1941 was $760; in 1942, $1,320. While the lower half of families received 15.4 per cent of the total income in 1941, they received 17.9 per cent of a much greater aggregate in 1942. The authors point out that in spite of such increases favoring the lower income groups, the upper 10 per cent of families received 37 per cent of the aggregate cash income in 1942.—D. N. C.

**An appraisal of the U. S. Bureau of Labor Statistics cost of living index,** A SPECIAL COMMITTEE OF THE AMERICAN STATISTICAL ASSOCIATION, *J. Am. Statistical Assoc.* **38**, No. 224 (Dec. 1943), pp. 387–405.

**Findings of investigating committee on cost of living index of Bureau of Labor Statistics,** *Monthly Labor Rev.* **57**, No. 5 (Nov. 1943), pp. 994–1002.

A committee appointed by the American Statistical Association appraised the cost-of-living index both as to its construction and its uses, reviewed criticisms submitted by organizations, and initiated special field studies to be used as tests of the validity of the index.

The committee reports its belief that the index measures with a satisfactory degree of accuracy the changes in unit prices paid for consumers' goods by city families of moderate income. The difficulties that have arisen concerning the index are believed to be the results of attempts to use it uncritically for purposes to which it is not adapted and for which it was never intended.

Eleven questions that set forth the major issues regarding the index are answered specifically in the *Journal* article and more briefly in the *Monthly Labor Review*. Recommendations are included for making the cost-of-living index more effective during the war and the reconstruction period.—D. N. C.

**Money while you're sick,** K. CLOSE. *Survey Midmonthly* **79**, No. 12 (Dec. 1943), pp. 328–331.

Since April 1943, Rhode Island has been paying disability benefits—"cash sickness"—as well as unemployment benefits to workers in covered industries. The additional social security factor was introduced without increasing contributions to the system, by converting part of a reserve that had accrued to the new use and using the machinery of the Unemployment Compensation Board.

Benefits are in cash and related to earnings and length of employment. They are the same in amount and duration as under the unemployment compensation provisions, but there is a two-week waiting period rather than one. No medical care is given, but claimants are required to produce medical certification of illness.

The new program has general public support. Some controversy centers around duplication of payment occurring when the claimant draws workmen's compensation benefits or his salary continues while he is ill, or over the role of the Board's physicians in policy making.—J. L. P.

**The frequency of doctors' prescriptions and of laboratory and related services in the treatment of illness,** S. D. COLLINS. *Milbank Mem. Fund Quart.* **21**, No. 4 (Oct. 1943), pp. 344–388.

A twelve-month survey of about 9,000 families reveals that medicine is procured for about 60 per cent of all illnesses. In 75 per cent of the cases it is procured on a doctor's prescription, in 5 per cent on the advice of a druggist, and in 20 per cent without physician's prescriptions or druggist's recommendations. Laboratory services were used in only 6 per cent of all illnesses.

The proportion of cases that had a doctor's prescription was least in rural areas and greatest in large cities. Purchase of medicine on a druggist's advice was most frequent in large cities. Purchase without prescription or druggist's recommendation was most frequent in rural areas.

Purchase of medicine on the recommendation of a druggist or without recommendation was more frequent among families in the lower income groups than among those in higher, but purchase by prescription did not vary by income among those attended by physicians.

The proportion of cases having laboratory serv-

ices was smallest in rural areas and largest in large cities. Use of these services also varied with income.

The practice of direct dispensing of medicines by physicians is more common in rural areas and small cities than in large cities and among families of low income than among higher income families. —J. L. P.

**How do the aged "get along"?** J. J. CORSON. *Survey Graphic* **33**, No. 1 (Jan. 1944), pp. 16–17+.

A survey by the Bureau of Old Age and Survivors Insurance of the Social Security Board among recipients of old age insurance in seven cities of the nation shows that most of those individuals and families have tried to maintain their households unchanged. Most of them retired unwillingly, and a large proportion still sought or had work.

Of those surveyed about 30 per cent in northern and western cities and 20 per cent in southern cities had continuing incomes of $600 or more a year, including their insurance benefits. About half had some permanent income in addition to their benefits. One-tenth had no other income. From one-third to one-half had incomes of less than $50 a month.

Some of those surveyed supplemented their income by drawing on savings. Some received help from relatives outside the home or relief agencies. Many were helped by relatives in the same household.

The author concludes that the present scheme of old age insurance and assistance is inadequate.—J. L. P.

**Rural co-operative self-help activities in the Pacific Northwest,** J. J. KING. *Am. Sociol. Rev.* **8**, No. 6 (Dec. 1943), pp. 706–710.

An affirmative answer to the question "Are rural co-operative self-help activities organized during the depression period still operating?" is presented in a review of the work accomplished by the Farm Security Administration in the Pacific Northwest. The article cites examples to show that full employment intensifies rural co-operative activities, thereby enabling the small farmer to make important contributions both to the war effort and to postwar stability.

Rural co-operative self-help activities need not be associated with economic depressions. If the small farmer is benefited in periods of depression, then the benefit can be greater under more prosperous conditions.—L. F. M.

**Construction of $500 houses in 1943.** *Monthly Labor Rev.* **57**, No. 6 (Dec. 1943), pp. 1058–1059.

About 17,000 houses costing less than $500 were built in 1943, more than had been built in recent years. Because of the wartime restrictions on new building, the increase in the proportion of these houses to the total of new housing was greater than the absolute increase.

Most of these houses were built of secondhand material and were of one or two rooms with a total floor space of less than 350 square feet. They were generally without interior plumbing or electric wiring. Wooden piers were the most common foundations. Most were built and occupied by their owners.—J. L. P.

**Rent ceilings hold.** *Bus. Week*, No. 745 (Dec. 11, 1943), pp. 77–78.

In the cost-of-living index, rents have remained stable, other items have increased. Rents have held steady because of circumstances outside OPA's control. Landlords have had more "stretch" than has been available to most entrepreneurs under price control.

Housing expenses have remained relatively stable. Taxes, administrative costs, and charges for janitors, fuel, and utilities have risen slightly; but these increases have been balanced by a decrease in repair and maintenance costs. Competition does not require that landlords provide frills for tenants. Wartime scarcities and limitations also have contributed.

Fixed expenses for landlords have been spread over a greater number of tenants with the level of occupancy at an all-time high, vacancies at an all-time low. As a result, net operating income for landlords is above prewar levels. Apartment house owners had a net operating income of $234 per dwelling unit in 1942 compared to $183 in 1939.

The volume of protests is about equal for tenants and landlords. OPA has forced rent reduction in 32 per cent of the tenant cases and allowed rent increases or adjustments to 46 per cent of landlords' petitions. Rent control has been easier to enforce than other price ceilings because (1) landlords have had to register, (2) it is difficult to disguise a rent increase, and (3) tenants are willing to complain.—L. F. M.

**Target for tomorrow. No. III, Food and the people,** J. B. ORR. England: The Pilot Press Ltd., 1943, 56 pp.

The author approaches the postwar food problem

by tracing the development of the present food habits of the British people. The review covers recommended standards for food requirements and reports on consumption studies and vital statistics, the effect of war and industrialism, and social measures adopted for improving the purchasing power and supplementing the food of needy segments of the population.

Housing is stressed as an important but secondary-to-food factor in health improvement.

The present war food policy assures even the poorest family in England a diet as near the standard required for health as is possible with the foodstuffs available, while giving farmers and food distributors a fair deal. The author sees in this the groundwork for a permanent postwar food policy.

Objections to the food policy inherent in the recommendations of the United Nations Food Conference of May–June 1943 are answered. Assured of adequate food, people will work to improve their whole standard of living. Pay, however, will have to be decent and based on the value, hardship, and danger of the work. Modern science can keep food production ahead of any population increases resulting from the bettered nutrition. The state can raise money for the improvement of the well-being of the people as it has for the destructive process of war.

The changes needed to gear the food production of the world to consumption requirements are outlined. Farms must be reconditioned and re-equipped and primitive farming methods abandoned. Full employment and a similar standard of living must be guaranteed farm and town workers. Industrial production must be kept at a high level.

The world organization needed to bring the recommendations of the United Nations Food Conference to fruition is described. A plan is presented, also, for a National Food Board for Britain charged with putting an adequate diet within the purchasing power of every family.—S. F. A.

**A study of the effects of odd-shifts upon the food habits of war workers, a summary of a project prepared by Gladys Engel-Frisch under the direction of the Committee on Food Habits, National Research Council.** *Am. Sociol. Rev.* **8**, No. 4 (Aug. 1943), pp. 471–472.

The effects of odd shifts on the food habits of 108 workers in war plants in Seattle and Bremerton were studied to try to answer two questions: (1) What are the implications for food habits of working on either of the odd shifts? (2) What can be done to compensate for any bad effects or to take advantage of any good effects? The day (normal) shift is definitely preferred by most workers and the swing shift (late afternoon-evening) is preferred to the graveyard or night shift because of the worker's attempt to adjust his sleeping habits to the "normal" day. Time of day seemed to be the most important factor in considering what kind of meal would be eaten. Food habit adjustments are more difficult on the swing shift than on the night shift because traditional times of eating are most changed. Complaints of the workers are presented as well as some recommendations for meeting the problems involved.—F. C.

**The food situation in Norway,** E. M. Roed. *J. Am. Dietetic Assoc.* **19**, No. 12 (Dec. 1943), pp. 817–819.

This article depicts the struggle of the Norwegian housewife to keep her family alive. The ration cards allow food amounting to about 1,500 calories per day if she can find all of the ration allowance in the stores. The theoretical daily ration is: 25 g oleomargarine, 1 lb potatoes, ½ lb bread, 1 cup skim milk, 25 g sugar, a little coffee substitute, a little cheese four times a year, and twice a year half a pound of molasses and a pound of apples. Almost everything is rationed; only sea gulls, crows, dried codfish, and certain other fish, salt, vinegar, and ersatz articles are unrationed. All possible sources of unrationed food are used to supplement the ration, such as victory gardens, berries, nuts, mushrooms, and acorns hunted in forests and along the roadside.

In spite of all the housewives' efforts, the people are always hungry. Their diets are deficient in calories as well as in protein, calcium, iron, and vitamin C, and for adults, in vitamins A and D as well. The average adult has lost from 12 to 22 pounds weight and incidence of disease is mounting.—F. C.

# FAMILY RELATIONS AND CHILD DEVELOPMENT

Contributed by Ruth Staples and Leland H. Stott, University of Nebraska, and Mildred Thurow Tate, Virginia Polytechnic Institute

**War marriages are different,** S. RIEMER. *Marriage & Family Living* **5**, No. 4 (Nov. 1943), pp. 84–85, 87.

Public attitude to war marriages oscillates between opposition to all such marriages because of the greater risk of failure and sympathy with the young persons who separate, possibly forever, when the young man enters the service.

In giving advice to a particular couple, the counselor should not consider whether war marriages in general succeed or fail but rather whether this particular marriage under the circumstances is likely to fulfill a useful function in the lives of this particular pair of individuals. The young couple wants help to decide whether they should marry now or wait until after the war, and whether they should consider the possibility that one or the other will change his mind and want to marry someone else after the war.

"The morale of the young people is endangered if they are not able to make up their minds firmly with regard to these various alternatives."

The test of frequency of divorce in war marriages as compared with peacetime marriages is not a fair test. Even the relationship which is dissolved after the war may fulfill a useful function in readjusting the soldier or sailor after demobilization. It may absorb and reconcile "much of the irritation and emotional strain that goes with the return to civilian life—there is good reason to believe that the single man has greater difficulties in the process of readjustment."

The author feels that from this point of view the country may be indebted to war marriages but that their value is not reflected in statistical tables of divorce.

"They spite their evaluation by peace time standards. War marriages are different."—L. H. S.

**War challenges family relationships,** C. R. ROGERS. *Marriage & Family Living* **5**, No. 4 (Nov. 1943), pp. 86–87.

The author enumerates some of the questions that the war is "throwing in the face of families":

(1) Are the emotional bonds of marriage strong enough to endure a long separation? This question imposes a particularly searching test upon the new marriage.

(2) Are the marriages and family relationships sufficiently deep and genuine to assimilate new opportunities for freedom that the war has brought? Families no longer have to stick together from economic necessity, as wife and children have their own earnings.

(3) Has this marriage deep enough roots in the emotional lives of both partners to survive the rapidly changing attitudes toward sexual freedom?

(4) Does family life make for individual independence? Does it help the wife orient her life to new responsibilities? Does it help the boy develop enough maturity to take up a man's task?

(5) Are parent-child relationships strong enough to give children needed emotional anchorage?

(6) Can family members adjust to casualty lists? Can they take losses without despair?

"War does not shatter the sound marriage in which emotional relationships are healthy and satisfying, but it does dissolve the family in which there is already some hidden decay." Men in the armed forces who are most likely to suffer neurotic breakdown are not those who have grown up in the emotional security of a normal, happy family atmosphere. Of the marriages contracted in the stress of war, those of individuals who are themselves products of emotionally sound homes are most likely to succeed. "The sound family can stand the stress of war. We need more and better resources for building families which are sound in their psychological relationships."—L. H. S.

**What are young people asking about marriage?** H. L. J. CARTER and L. FOLEY. *J. Applied Psychol.* **27**, No. 3 (June 1943), pp. 283–287.

A group of 418 young people—mostly college students consisting of both sexes and of various religious beliefs and closely representing the average age at which marriages occur in this country (22.4 years)—listed questions which they felt to be important to persons contemplating marriage.

Thirty-six per cent of the questions dealt with general aspects of marriage and courtship, such as the wife's seeking a career, factors making for compatibility; 22 per cent dealt with economic and financial matters; 12 per cent, with children, especially under what conditions a couple should or should not have children; 11 per cent, with problems of religious differences; 10 per cent, with sex; 9 per cent, with physical and mental health problems of prospective mates.

The women were more interested in problems concerning children, religion, and economic aspects of marriage; and the men in sex and health problems. The older subjects asked more questions about sex and the younger about religion. Rural dwellers were more concerned with religion, and city dwellers with health and sex.

Results suggest that sex aspects of marriage may be less significant than economic factors and that matters young people most wish to know, involve physiology, psychology, sociology, economics, mental hygiene, and religion.—R. S.

**Student and child relationships in the nursery school,** M. NESBITT. *Child Devel.* **14**, No. 3 (Sept. 1943), pp. 143–166.

Sixty-three young women students in a college child development class were observed in their relations with a group of nursery school children. Using a time sampling method, verbatim records were obtained of what the students did and said and of the children's behavior in relation to them as the students assisted the nursery school teacher.

An adaptation of Anderson's plan for measurement of domination and integration in teachers' contacts with children was used to classify the student's methods.

The students were more integrative than dominative in their relations with the children and seldom used negative directions or too much verbalization. They contributed more to "acceptable" than to unacceptable practices of the children. But they rarely helped the children to arrive at better solutions of their problems.

Individual students showed extremes in helping the children and in leaving them alone. Some students used a large proportion of "desirable" methods, while other students tended toward the use of more than one undesirable method.

Information about the students and their backgrounds indicated that those who were most integrative in their relationships with the children and contributed most to desirable child behavior were the more intelligent, younger students from homes where the father was more integrative than dominating in his behavior.—R. S.

**Relationships among play interests and delinquency in boys,** D. B. HARRIS. *J. Orthopsychiatry* **13**, No. 4 (Oct. 1943), pp. 631–637.

Using a Play Activities Blank developed by the author some years ago, play activities of 63 boys in Minneapolis public schools who appeared in juvenile court during the year preceding the test were compared with a control group of classmates in their home rooms in school.

The difference between the play interests of the two groups was significant. The author concludes that it is feasible and rewarding to study delinquent behavior in boys by means of a "play activity inventory."

"The evidence that certain leisure time investments are closely associated with legally recognized delinquent behavior leads to an interpretation of delinquency as simply a boy's effort to have fun in a social context that is definitely limited in specific ways."

That delinquency may be sometimes more than a mere accumulation of undesirable behavior is considered likely. The "canalization" theory of behavior development is suggested as a useful concept to explain the apparent developmental nature of delinquent "careers" in general and play interest patterns in particular.

As play behavior constitutes only one portion of the life of the delinquent, one cannot expect a direct attack on boys' play interests to eradicate all juvenile delinquency.—M. T. T.

**Personality tests of partially sighted children,** R. PINTNER and G. FORLANO. *J. Applied Psychol.* **27**, No. 3 (June 1943), pp. 283–287.

This study was undertaken to determine whether any measurable differences in personality make-up exist between children with a minor physical handicap and normal children.

A group "personality adjustment" test and one measuring certain "personality traits" were given to children in sight conservation classes, and the results were compared with previously determined "norms" and similar tests on children with auditory defects.

Very slight differences between the normal and handicapped groups were evident; for instance, the partially sighted girls tend to be somewhat introverted.

In general, the investigations conclude that slight visual or auditory defects do not seem to result in a distinct personality pattern or in an inability to feel satisfactorily adjusted. Personality traits vary in amount from child to child and from trait to trait among visually and auditorially handicapped children in the same manner as they do with normal children.—R. S.

# INSTITUTION ADMINISTRATION

Contributed by Blanche Tansil, Woman's College of the University of North Carolina

**To do it easier and do it better,** S. CHASE. *Reader's Digest* **43**, No. 259 (Nov. 1943), pp. 108–112.

Job-methods training, having proved its worth in war plants, is being extended to hospitals and farm work. It is the new way of teaching scientific management by democratic methods in order to inspire workers to think and speed production. Keynote of the training is "Management is the development of people and not the management of things."

**A hospital training program for new employees,** W. F. ROBINSON. *J. Am. Dietetic Assoc.* **19**, No. 11 (Nov. 1943), pp. 775–776.

The burden of training a new employee is made lighter by dividing responsibility among the staff. The newcomer goes first to the personnel office where money matters are explained and is given a booklet of information about the hospital, including rules and regulations affecting all employees. She is checked on the contents of the booklet in the weekly class sessions. Supervisors in different departments train new workers through written job analyses. At staff meetings, progress of the employees is reported.

**Cooking from the inside out,** A. G. MEZERIK. *Restaurant Mgt.* **53**, No. 4 (Oct. 1943), p. 23.

The electronics industry promises postwar developments that may revolutionize restaurant operation. Foods will be preserved with electronic tubes. Induction heating will change nearly all our concepts of cooking and cooking equipment; in fact, the room will look more like a radio broadcasting station than a kitchen. Cooking will be easier and quicker, and undoubtedly many improvements in the art of preparing foods will result.

**Meat cookery in war time,** J. A. CLINE. *Am. Restaurant Mag.* **27**, No. 10 (Oct. 1943), p. 72; **Proper cooking methods mean more meat,** No. 11 (Nov. 1943), pp. 35–38, 77.

The second and third in this vital series on conservation are here listed.

The following points have been found most important in conserving nutritive values of meats in roasting: (1) Roast without searing at a constant low temperature of 250° to 350°F to save both meat and fat; (2) roast only to the degree of doneness desired; (3) roast at a low temperature so as to have more meat to serve and drippings that are more desirable for gravies and for other cooking purposes, such as seasoning, frying, or shortening. Tables show the effect of roasting temperature on shrinkage of beef, lamb, pork, and cured hams.

The use of lower temperatures in broiling, griddle broiling, and frying results in a larger and better appearing product that is more uniformly cooked, juicier, and more tender than when high temperatures are used.

Bacon, ham, and ground meat patties may be prepared entirely by oven cooking, by being placed on a rack in an open pan with a moderate oven temperature of 325°F maintained.

Fried meat has a crisp brown surface. Only thin cuts of tender meat should be fried. In griddle frying, meat is usually coated in flour or corn meal, browned quickly on both sides, cooked at moderate temperature uncovered until done, then drained, and served promptly. In deep fat frying, the product is coated with egg (to decrease fat absorption) and then with crumbs or flour or meal (to increase browning and crispness) and finally cooked by immersing in fat heated to 325° to 350°F.

**Lunches can be complete,** M. ROGIN. *Nation's Schools* **32**, No. 5 (Nov. 1943), pp. 52–54.

Simplified menus for top-of-stove cookery are charted. Meal plans are given, using meat, fish, egg, cheese, and legumes as the main dish, also using a sandwich as the main dish.

Weekly menus should be carefully checked against the standard for the complete lunch to ensure that no item has been omitted and that amounts are adequate.

Planning should include both a school food-preservation program of drying, locker freezing, and canning and a storage program for fresh fruits and vegetables.

**Every spoonful counts!** L. F. COOPER. *Modern Hosp.* **61**, No. 4 (Oct. 1943), pp. 109–110.

Our food needs, both at home and abroad, have greatly increased. Everyone must be made aware of the fact that food must be conserved. The weighing of food waste—the edible portion of the food that is not eaten—is an excellent means of control. If this is not feasible then someone

should be designated to make careful observation. One method of reducing plate waste in hospitals is to keep portions served on trays medium-sized and offer "seconds." It is imperative, if best results are to be obtained, to make everyone aware of the prevailing food problems. This can be done by conferences, demonstrations, and posters.

**The Army conserves its food,** A. W. ECKERT. *Modern Hosp.* **61**, No. 5 (Nov. 1943), pp. 94–95.

Fitzsimons General Hospital, Denver, one of the largest Army hospitals in the world, has a unique food conservation program that civilian hospitals might well follow. Surplus food from the farm is processed, frozen, and stored in the hospital's cold storage lockers. Members of the dietetic staff volunteered their services to do the work. Coupled with this program is that of eliminating waste in food served to the personnel and of utilizing food left from meals.

**What dehydration will mean to the restaurant of the future,** A. M. MACFARLANE. *Restaurant Mgt.* **53**, No. 4 (Oct. 1943), pp. 44–45.

Dehydrated foods save labor in preparation and cost in shipping and should keep the price of these foods at attractive levels and within the reach of all. The new method of compression reduces bulk and moisture and increases keeping quality. These products hold much promise for the postwar world.

**The care of equipment in wartime,** M. L. CLIPPINGER. *J. Am. Dietetic Assoc.* **19**, No. 10 (Oct. 1943), pp. 695–697.

In the Fairmont General Hospital, employee education has been stressed by printed instructions framed and hung over each piece of equipment. Oiling of machinery is done by employees to relieve the engineer. Specific suggestions for the care of each item of equipment are given.

**Housekeeping procedures,** A. M. LABELLE. *Modern Hosp.* **61**, No. 5 (Nov. 1943), pp. 90–91.

The article tells how the executive housekeeper of the Presbyterian Hospital, Denver, successfully uses older women as maids. Short working hours do not interfere too much with their own home work and eliminate the necessity of their being fed at the hospital.

The maids make their own floor and wall mops. Directions and sketches are shown.

The porter has worked out a formula for waxing floors which easily keeps them clean, shining, and nonslipping. Liquid wax is used in the rinse water after mopping in the proportion of one cup wax to two gallons water.

**Planning the restaurant kitchen,** H. BLUMBERG. *Architectural Record* **94**, No. 2 (Aug. 1943), pp. 75–85.

Kitchens that are adequate in size and properly planned produce good food more easily, quickly, and cheaply than do inefficient kitchens; and they also require less operating personnel and lower operating expense. A properly planned kitchen is one in which the flow of materials and personnel is organized and synchronized for the greatest efficiency.

Simplified diagrams illustrate basic principles of sequence and circulation in kitchen planning. The circular kitchen, where counters and equipment are arranged to conform to the flow of waiter traffic, is called "ideal." Back of the services with which the waiter has direct contact are facilities for receiving, checking, storing of food, and various preparation operations. All units should be on the same level.

Plans of a service-restaurant, a cafeteria, and a lunch-counter coffee shop are shown.

**Sound conditioning,** H. J. B. HOSKINS. *Am. Restaurant Mag.* **27**, No. 11 (Nov. 1943), pp. 34, 77.

Numerous products which not only eliminate noise but are beautifully decorative, economical, and easily installed have come into widespread use in restaurants. There are brief descriptions of noise-absorbing and sound-conditioning materials that can be made available.

**Business machines that conserve profits and build good will.** *Restaurant Mgt.* **53**, No. 4 (Oct. 1943), pp. 95–96.

Sound control methods are vitally important in the food business. An adding machine is needed in the receiving room and in tabulating costs against sales prices. The check machine is as necessary at counters as the cash register is at the cashier's desk. The business machine does a clean, workmanlike job and with few errors. Filing cabinets of the proper sizes for various records encourage the habit of checking last month's costs against current prices. A good duplicating machine is needed for menus.

# NUTRITION

Contributed by E. Neige Todhunter, University of Alabama

**Nutrition studies during pregnancy. IV. Relation of protein content of mother's diet during pregnancy to birth length, birth weight and condition of infant at birth,** B. S. BURKE, V. V. HARDING, and H. C. STUART. *J. Pediatrics* **23**, No. 5 (Nov. 1943), pp. 506–515.

Diets of 216 mothers were studied with regard to the protein content during the fourth and through the ninth month of pregnancy and the condition of the infant at birth. Only 10 per cent of the diets were rated as excellent with 85 g or more of protein; 22 per cent were good with 70 to 84 g protein; 30 per cent were fair with 55 to 69 g; 24 per cent were poor with 45 to 54 g; and 14 per cent had less than 45 grams.

With increasing protein in the mother's diet there was an increased length of the infant at birth and a corresponding increase in weight. Statistical analysis of the data and use of correlation coefficients showed that this increase in height and weight was related to the protein and not to calcium or riboflavin or other nutrients found to be present in many of the protein-rich foods.

The pediatric rating on the condition of the infant at birth was also superior for infants of mothers with the higher protein intake. The amount of protein in the mother's diet during pregnancy is an important factor in determining the infant's physical condition at birth.

**Some determinations of maternal and plasma vitamin C levels,** C. J. LUND and M. S. KIMBLE. *Am. J. Obstet. Gynecol.* **46**, No. 5 (Nov. 1943), pp. 635–647.

Vitamin C determinations were made on more than 500 samples of blood from 197 women at different stages of pregnancy; 46 of the women were studied three or more times during pregnancy. About half the determinations were for women whose diets were calculated to be adequate in vitamin C and whose plasma values averaged 0.95 mg per 100 ml. Fifteen per cent of the diets were "poor," with plasma values averaging 0.18 mg. The rest had fair diets and corresponding plasma values of 0.52 mg.

Diet was found to be the major factor in determining plasma levels, and diet alone could maintain a high plasma level throughout pregnancy and delivery. Addition of small supplements, 25 mg ascorbic acid, was of no benefit when the diet was good and was insufficient when the diet was inadequate.

Seasonal variation in vitamin C intake influenced plasma levels, but no evidence was obtained to indicate that pregnancy or labor influenced the vitamin C level. Plasma values were reduced in cases of vomiting. Fetal plasma values were always higher than those of the mother at time of delivery, the ratio being higher for infants whose mothers had low values. The fetus' vitamin C is gained at the expense of the mother. Eighty per cent of the infants had normal vitamin C levels at birth while half of the mothers had values below 0.60 mg. Citrus fruits, tomatoes, and berries proved excellent sources of vitamin C; at least one of this group of fruits is recommended daily during pregnancy.

**Vitamin A during pregnancy, labor, and puerperium,** C. J. LUND and M. S. KIMBLE. *Am. J. Obstet. Gynecol.* **46**, No. 4 (Oct. 1943), pp. 486–501.

A group of 215 women were studied during pregnancy for the vitamin A content of the plasma, using the photocolorimetric method of determination. Calculations were also made of the vitamin A content of the diet. The average value for plasma vitamin A in healthy nonpregnant women was found to be 96 IU per 100 ml, and the range was from 65 to 165 IU with most of the values falling between 75 and 120 IU. The value of 90 IU per 100 ml is considered the lower limit of the optimal range for women.

Among the pregnant women there was a correlation between the vitamin A intake and the plasma vitamin A level. As pregnancy progressed, plasma vitamin A values decreased, probably through some body storage and through increased demands of pregnancy. Immediately following delivery, there was a rise in vitamin A content of the plasma and this was maintained during lactation.

No correlation was observed between carotene values and vitamin A content of the plasma. During the first trimester of pregnancy, the normal diet standard of vitamin A is considered adequate; in the second trimester, an additional 5,000 IU is recommended; and 10,000 IU, during the last trimester.

**An evaluation of the blood and urinary thiamine determinations in vitamin $B_1$ subnutrition,** R. A. BENSON, C. M. WITZBERGER, and L. B. SLOBODY. *J. Pediat.* **23**, No. 4 (Oct. 1943), pp. 437–445.

A daily intake of less than 600 micrograms, an average excretion of less than 100 micrograms, or the excretion of less than 16 per cent of the ingested thiamin invariably denotes thiamin tissue unsaturation. Such determinations are time-consuming, and blood determinations if reliable would be a valuable aid in diagnosis of thiamin subnutrition.

A group of 45 healthy children showing tissue saturation had blood levels of vitamin $B_1$ ranging from 4.8 to 12.3 micrograms with a mean of 7.8 ± 1.3 micrograms as determined by the thiochrome method. Sixty-six children with tissue unsaturation as judged by intake and excretion showed plasma levels ranging from 4.5 to 12.4 micrograms, which is within the normal range.

It is postulated that the vitamin $B_1$ content of the blood does not begin to fall until the stores in the tissues are almost exhausted, and it is the state of the tissues which indicates thiamin adequacy. Urinary excretion studies are at present the best means of evaluating vitamin $B_1$ subnutritional status.

**Riboflavin and thiamine interrelationships in rats and in man,** J. W. FERREBEE and N. WEISSMAN. *J. Nutrition* **26**, No. 5 (Nov. 1943), pp. 459–469.

Rats which were fed a thiamin-deficient diet showed no signs of riboflavin deficiency as judged by concentration of riboflavin in liver and kidneys or by urinary excretion of this vitamin when compared with controls.

These findings are contrary to those of earlier investigators who reported that thiamin deficiency was a significant factor in producing a riboflavin deficiency.

Tissue analyses for human subjects showed no riboflavin deficiency even when thiamin content was very low. Urinary excretion of riboflavin stayed normal in cases showing low thiamin excretion. The authors suggested that it had been hard for them to obtain any objective evidence that clinical or subclinical thiamin deficiency is of frequent occurrence in groups studied.

**The biochemical defect in nicotinic acid deficiency. II. On the nature of the anemia,** P. HANDLER and W. P. FEATHERSTON. *J. Biol. Chem.* **121**, No. 2 (Dec. 1943), pp. 395–404.

Anemia was produced in groups of dogs receiving three different basal diets but all deficient in nicotinic acid. The anemia was macrocytic in type with a low red blood cell count and lowered hemoglobin and hematocrit.

Administration of iron, protein, glucose, hemoglobin, antipernicious anemia factor, xanthopterin, and high doses of cobalt were without effect.

Treatment with 50 mg nicotinamide daily for 3 days and then 50 mg once weekly brought about an immediate reticulocyte response and the red cell count, hemoglobin, and hematocrit continued to rise for 30 to 40 days. As body weight and plasma protein concentration did not increase, indications are that the anemia was directly due to lack of nicotinic acid.

**A study of normal human requirements for ascorbic acid and certain of its metabolic relationships,** H. J. PURINTON and C. SHUCK. *J. Nutrition* **26**, No. 5 (Nov. 1943), pp. 509–518.

Fasting blood plasma vitamin C levels were determined for 63 normal individuals, 52 women and 11 men, before and after receiving a test dose of 500 mg ascorbic acid. The test dose was given intravenously in 47 subjects and orally in the others. Excretion of ascorbic acid and of citric acid and hemoglobin values were also determined.

Fifty-four per cent of the group had fasting levels below 0.8 mg ascorbic acid per 100 ml plasma. Ascorbic acid requirement was estimated to be more than 100 mg daily for subjects under 25 years of age and considerably less than 100 mg for those between 25 and 50 years. In 17 out of 19 individuals there was a correlation between plasma ascorbic acid and the hemoglobin level.

The citric acid excretion was increased when the ascorbic acid excretion increased. There was also some evidence that a low basal metabolic rate was associated with a lower ascorbic acid requirement; of 16 subjects with low basal metabolism, 68.8 per cent had an ascorbic acid requirement below the average.

**The ascorbic acid requirements of school-age girls,** V. M. ROBERTS, M. H. BROOKS, L. J. ROBERTS, P. KOCH, and P. SHELBY. *J. Nutrition* **26**, No. 5 (Nov. 1943), pp. 539–547.

Thirty healthy girls between 6 and 12 years of age served as subjects. The vitamin C content

of their regular diet was adjusted to 21 or 22 mg daily. Supplements of vitamin C ranging from 10 mg to 60 mg were given for 7-day periods, and blood plasma and urinary excretion of vitamin C were determined. Blood levels of 0.7 mg per 100 cc and an excretion of 50 per cent of a 300-mg test dose were taken as indices of a satisfactory state of vitamin C nutrition.

There was wide variation in ascorbic acid content of the blood at each level of intake. Four-fifths of the group receiving 62 mg ascorbic acid daily and all of those getting 72 mg were saturated, and the satisfactory level of intake for the school-age child is considered to be 62 to 72 mg.

**Prevention of rickets with single massive doses of vitamin D,** A. I. J. WOLF. *J. Pediat.* **22**, No. 4 (April 1943), pp. 396–417.

Single massive doses of 600,000 USP units of vitamin D from an electrically activated preparation of ergosterol was found to be a safe and time-saving method of protecting infants from rickets. Sixty-two infants who received such doses at 3 to 5 months of age showed no toxic effects or disturbances from the dose. Of this group 18 who had mild cases of rickets at the beginning were healed in 2 to 7 months, and 44 others followed for 2 to 7 months showed no signs of rickets after one massive dose of vitamin D.

**The value of biotin, folic acid concentrates, and liver extract in the diet of rats fed succinyl sulfathiazole,** B. RANSONE and C. A. ELVEHJEM. *J. Biol. Chem.* **151**, No. 1 (Nov. 1943), pp. 109–115.

Rats growing normally on a synthetic ration show decreased rate of growth when fed sulfonamides, such as sulfaguanidine and sulfasuxidine (succinylsulfathiazole), which are poorly absorbed.

Sulfasuxidine was added to a synthetic diet containing biotin and fed to rats. Addition of folic acid concentrate or a liver concentrate containing folic acid protected the rats from the effects of sulfasuxidine. Rats given either of these supplements grew as well or better than control rats receiving no drug.

Growth with these supplements was better when biotin was administered. Sulfasuxidine added to the basal caused a marked lowering of the leucocyte count, and this effect was counteracted by folic acid concentrate or liver extract.

**Absorption and therapeutic efficacy of iron phytate,** C. V. MOORE, V. MINNICH, and R. DUBACH. *J. Am. Dietetic Assoc.* **19**, No. 12 (Dec. 1943), pp. 841–844.

Increase of iron in blood serum following ingestion of iron phytate was studied to determine the extent to which the iron was absorbed. Subjects who received a dose of iron phytate supplying 20 mg iron per kg body weight showed no increases in serum iron, but the same subjects showed serum iron increases after test doses of 3 or 4 mg iron as ferrous sulfate per kg body weight. It was concluded that iron phytate is much less readily absorbed from the intestinal tract than is a salt such as ferrous sulfate.

Seven patients with hypochromic microcytic anemia, when given 12 grams of iron phytate, showed a return to normal of hemoglobin values, but the reticulocyte response was small. Addition of ferrous sulfate caused a reticulocyte increase. Iron phytate is a relatively insoluble iron salt, and it is concluded that the ingestion of 6 to 8 slices of bread fortified with iron phytate would probably give an absorption of only a fraction of a milligram of iron.

**The nutritive value of white and whole wheat breads,** R. F. LIGHT and C. N. FREY. *Cereal Chem.* **20**, No. 6 (Nov. 1943), pp. 645–660.

Young rats were fed air-dried white bread supplemented with vitamins A, D, and E, or received 100 per cent whole-wheat bread. These basic formulae were then modified by the inclusion of dry skim milk, salts, casein, or various amino acids; and growth response of the rats was determined for 8- and 12-week periods.

Little growth was obtained on white or enriched bread without added milk. Animals receiving 6 per cent milk bread grew slightly better than those on whole-wheat bread. The milk partially corrected the amino acid deficiency and increased the riboflavin and the mineral content.

The addition of the amino acids lysine and valine to white bread along with salt mixture and vitamins A, D, and E and riboflavin was one-third more efficient in promoting growth than was whole-wheat or 6 per cent milk bread. The important contribution of added milk to white bread was shown to be protein, minerals, and riboflavin rather than other members of the B complex as had been earlier suggested.

# *From the Editor's Basket . . .*

**"School Lunches in Two Rural Communities"** is a free 24-page circular written by Ada M. Moser and published by the South Carolina Agricultural Experiment Station of Clemson Agricultural College. It reports an experiment with two rural elementary schools: in one a well-planned hot lunch was served; the other had no school lunch but part of the time used surplus foods distributed by the USDA. The circular not only demonstrates the value of a school lunch but also how foods for a well-balanced diet can be obtained in a rather poor community.

**"The economic situation** during the first two years following the war is likely to be distinctly better than that of the late thirties," declared a Brookings Institution study last year.

"Postwar Re-Employment: The Magnitude of the Problem" by Karl T. Schlotterbeck, latest Brookings booklet on the subject, says, "The outlook for a high level of production and employment during the transition period appears better today than it did a year ago," though he warns that "there may be serious difficulties in congested war production centers" and that "there may also be difficulties after the carry-over stimuli from the war period have spent themselves."

He points out factors ignored by some of the prophets concerning postwar conditions. Order from The Brookings Institution, Washington 6, D. C. Price, 25 cents.

**The Home Craft Course** series on Pennsylvania German art has two new booklets: "Pennsylvania German Painted Tin (Tole Ware)" by Elizabeth Swartz Hoke and "Pennsylvania Dutch Home-Weaving Patterns" by Marguerite P. Davison.

The one on tin work gives details of designs and photographs of typical pieces and lists materials required for the work. The booklet on weaving has an excellent historical chapter and clear-cut analyses of woven patterns illustrated.

Order them from Mrs. C. Naaman Keyser, Plymouth Meeting, Pennsylvania. Price, 60 cents to those who mention the JOURNAL; $1 to others.

**"Looking at Clothing and Textile Labels,"** "The Grade Labeling of Canned Fruits and Vegetables," "How Informative Labels Help You Stretch Your Dollars," and "Federal and State Laws Affecting Labeling" are four free mimeographed 10- to 16-page bulletins published in January by the National Consumer-Retailer Council, Inc., 8 West Fortieth Street, New York 18.

They are written in simple, clear style to help develop good buymanship and get shoppers to be label-conscious.

**"The pressure canner is now a weapon of war.** Make it last." Thus admonishes the latest leaflet issued by the Bureau of Human Nutrition and Home Economics, "Take Care of Pressure Canners." It tells how to check and double check a canner so as to insure efficient work, how to use it before, during, and after canning. Free on request from Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

**"School Lunch Recipes"** is another free publication to be ordered from the same office. The specialists who prepared the handbook drew heavily upon the BHNHE's previously published school lunch recipes but adapted them to wartime rationing and food supplies and to the type A and type B patterns set up by the Food Distribution Administration.

**"Rooms for War Guests"** is an Oregon State College bulletin planned to guide families who are fitting up rooms to rent to war workers, but it would be exceedingly helpful to anyone anywhere who wants to take in "paying guests."

It was written by Maud Wilson of the School of Home Economics at Oregon State College. Among topics discussed are: home needs of workers, points in management, criteria to use to determine when a room is rentable, tips as to ways to utilize space, plans by which a home craftsman could build simple, sturdy furniture for the room. Order from School of Home Economics, Oregon State College, Corvallis, 40 cents.

**"The garbage pail is often the best-fed member** of the family," comments Voice II in a radio script being distributed by the War Food Administration, Washington 25, D. C. It is No. 3 in a series of 4½-minute scripts on food conserva-

tion: No. 1, "Reduce Waste Through Better Meal Planning"; No. 2, "Reduce Waste with Proper Food Preparation and Storage Methods"; and No. 4, "Reduce Waste with New Table Manners and Better Use of Leftovers." Each is well written and would be good for school or club programs.

Other aids in working up programs or posters are: "The Conservation of Food: I. In the Home," 14-page leaflet; "Discussion Guide on Food Conservation for Use by Women's Groups"; and "Information for Public Speakers on Food Waste." All free.

**A test for mothers,** one for fathers, and another for evaluating home life are given in "Morale in the Home," Extension Circular No. 5-105 of the University of Nebraska Extension Service. This excellent, practical circular was written by Leland H. Stott, associate professor of research in family relationships. Single copies free while supply lasts.

**"Taking Care of a Baby,"** "Taking Care of a Child After School," "Getting Supper for a Child and Putting Him to Bed" make a trio of simply worded, practical booklets for "junior aides in child care." Each carries the WHEELS device (Women's Home Economics Emergency Land Service). The needs of a Canadian student in a Cornell class inspired preparation of the series. Written in the language of the grammar school girl, it should be helpful to mothers who get young girls to take care of their children as well as to the girls who serve as child care aides. Order from Miss Evelyn Herrington, College of Home Economics, Syracuse University, Syracuse, New York. Price, 25 cents for the series.

**"Approved Films on Food and Nutrition"** is a 25-cent, 44-page booklet published by The Committee on Evaluation of Motion Pictures, New York City Food and Nutrition Program, 45 Lafayette Street, New York 13, New York.

The committee reviewed more than 100 films and selected 45 as meeting their tests of accuracy, good organization of subject matter, excellence of presentation, and educational value. The producer and distributors, data as to time required for showing, terms for sale or rental, a résumé of the content, and an appraisal of value—these are listed for each film. The booklet came off the press in December 1943.

The chairman of the committee which judged the pictures is Mrs. Gertrude Gates Mudge, nutritionist of the New York City Department of Health; co-chairman is Elizabeth Guilford, director of the Home Economics Bureau, Metropolitan Life Insurance Company.

**Six films on nutrition and rationing** (British style) will be of interest to those who have facilities for showing them: "ABCD of Health," animated cartoons and photography, telling of the vitamins needed for health, $10; "Dinner at School," $10.50; "Eating at Work," about factory canteens, $13; "For Children Only," on overcoming vitamin C deficiency by special rationing, $8; "Partners in Crime," on the black market, $10; and "World of Plenty," on food production, distribution, and consumption, $47. Order from The Film Officer, British Information Services, 1336 New York Avenue, N.W., Washington 5, D. C., or from any of the consular offices.

**What four- and five-year-olds are like** as persons, their needs, and behaviors—these are discussed in an excellent 28-page, 35-cent bulletin of the Association for Childhood Education, "Four- and Five-Year-Olds at School." The relation of the kindergarten to the nursery school, the first grade, and the home is also described.

"Social Studies for Children" is another of ACE's new bulletins (also 35 cents) which takes up such questions as: What experiences can we provide children that will lead toward social maturity? What are some criteria for social development?

Two other new ACE bulletins are: "1942–43 Supplement: A Bibliography of Books for Young Children" (20 cents) and "Toys Children Like" (20 cents), which tells how to make drums, cork animals, furniture, cymbals, trains.

Order from the Association for Childhood Education, 1201 Sixteenth Street, N.W., Washington 6, D. C.

**Just how do various population groups in the USA prepare their foods,** and what are the habits and attitudes related to food preparation? Dorothy Dickins reports a study in this field in her "Food Preparation of Owner and Cropper Farm Families in the Shortleaf Pine Area of Mississippi" in *Social Forces* for October 1943. Reprints can be obtained from Agricultural Experiment Station, State College, Mississippi.

Another of Dr. Dickins' excellent studies, published by the Station, is "Effects of Good Household Management on Family Living."

# *News Notes . . .*

### *News General*

**On Miss Harris' February Schedule.** Jessie W. Harris, president of the AHEA, who this year is chief of the community nutrition services division, War Food Administration, spoke on the Illinois Farm and Home Week program on February 10. From February 14 to 16 she was in Louisiana for a series of district conferences conducted by the state nutrition committee and in Mississippi for similar conferences from February 17 to 21.

### *Alabama*

**Alabama College.** Johnnie Carlisle is teaching at the Montevallo High School.

A style show featuring woolen suits made by the clothing classes from discarded clothing was held in Palmer Hall in February.

The experimental cookery class has been working on recipes involving greater utilization of locally grown foods.

**University of Alabama.** A research project to further uses of cotton is under way.

The Tuscaloosa Consumer Council sponsored a clothing clinic in January conducted by Levice Ellis, extension clothing specialist, and Elizabeth Collings, county home demonstration agent.

The department of family life has added three new courses this quarter: practice teaching, special problems with children, and adolescent development. Its infant laboratory has a new member, Martha Milne Hill, aged 11 months. She and Jacqueline Hallaman, aged 7 months, enable the students in child development to compare the growth of normal children. The mothers of both babies are alumnae.

Mable Adams, who recently received her master's degree in nutrition, has now joined the faculty.

Marjorie Neal, '38, is in charge of the textile research program of A. M. Tenney Associates.

Laura Hammond, a December graduate, is teaching at the Akron High School in Hale County.

Frances Sullivan, also a December graduate, is now a nursery school teacher at the Edgemere-North Point Nursery School, Baltimore, Maryland.

**Extension Service.** Jessie W. Harris, president of the AHEA, was one of the speakers at the annual meeting from January 10 to 13 at the Tutwiler Hotel, Birmingham. Separate programs for the home demonstration staff included panel discussions of "Outlook for 1944," "4-H Club Work," "Ways of Reaching More Rural Women," and "Strengthening the County Council Program."

Mrs. J. E. S. Rudd died at her home in Ashland on November 30. From 1915 to 1923 she was home agent in Tuscaloosa County, and from 1923 to 1941, agent in Clay County. Since 1941 she had been an assistant.

Recent marriages among home demonstration agents and their successors include: Floris Copeland, agent in Coosa County, to Pvt. F. W. Sheppard on November 27—successor, Ruth Sunberg; Vera Parkman, assistant agent in Dale County, to Lt. Mariott Lufkin on December 25—successor, Frances Norton; Roberta Diamond, agent in Choctaw County, to Cpl. O. W. Struthers on November 26—successor, Ruth Moore; Mrs. Annis Snoddy, agent in Calhoun County, to Capt. Eugene Hurt on December 13—successor, Miriam McClendon.

### *Arizona*

**Farm Security Administration.** Mrs. Monita Greenwood, former FSA home management supervisor in Prescott, has joined the WAC and is in training at Fort Des Moines.

### *Arkansas*

**Arkansas Home Economics Association.** Items for the January newsletter sent to some 900 Arkansas home economists were assembled by county news gatherers.

Most of the group activity of home economists in the counties is centered around consumer interests, nutrition, and Red Cross work.

The Craighead County unit emphasized the Food Fights for Freedom program by an exhibit at the Hotel Noble, Jonesboro, and one at the county library. Foods in the seven basic groups were given toothpick legs and armed with tiny toy guns and flags and placed in a marching position. Posters explained the meaning.

The Phillips County group also had displays of the basic foods, including charts, at the YWCA cafeteria in Helena. Its manager, Mrs. Madge Gardner, has herself carried on an educational

program on the use of soybeans. In addition to serving them boiled and baked, she has used them in cookies, ice cream, pie, and candy and offered samples to hesitant customers.

**Extension Service.** Home agents attended a state meeting in Little Rock from January 4 to 7.

**Farm Security Administration.** Martha Dinwiddie is serving on a postwar planning committee on housing for Arkansas, Louisiana, Oklahoma, and Texas.

Annie Grace Evans of Plainview is now assigned to an American Red Cross clubmobile in South England, and Bernice Caldwell of Salem is doing hospital recreational work in Australia.

**Food Preservation Program.** Canning kitchens have been opened in Sharp, Fulton, and Independence Counties. Some of them will be operated the year round.

**Vocational Home Economics.** The first vocational home economics department in Clay County was opened in a white cottage at Corning on October 4, with 72 girls enrolled.

### *California*

**California Home Economics Association.** "Home Economics in Action on the Home Front" was the theme of the Association's 4-page "Action-Gram" sent to members late in December. Under "Home Front Action During Summer Vacation" were listed defense jobs held by various members in the northern and southern sections; and under "Current Action on the Home Front" were reported current school, housing, newspaper, radio, institute, exhibit, and nutrition activities of members.

**Farm Security Administration.** One particular FSA interest during the past two years has been the California Rural Health Program, sponsored by the FSA and the California Physicians' Service. There are now 10 health associations in the state, and each elects its own board of directors. Any farm family in California whose annual net income is $2,000 or less may join. Since family plans for FSA borrowers consider the Rural Health Program when medical expenses for the year are budgeted, many of the families have become members of the associations.

Orpha Miller, former home management supervisor, is now FSA supervisor at Riverside. Mrs. Marjorie Springer and Mrs. Gwendolyn Haight, also former home management supervisors, are acting FSA supervisors at Santa Maria and Madera, respectively.

### *Connecticut*

**Connecticut Home Economics Association.** A joint conference with the Connecticut War Council was held in New Haven on February 5. "Consumer Cost-of-Living" was the theme.

**Hartford Nutrition Committee.** The committee has been sponsoring a speaker's bureau and a series of 6 Sunday afternoon broadcasts on "Food Problems of the World." On each radio program a member of the committee questioned an authority on some particular country.

**State Department of Education.** Violet Simpson began work February 1 as food service consultant for the Connecticut State Hospitals.

Short unit evening programs in dressmaking for homemakers have been developed in the state trade schools in Hartford, Bridgeport, and New Britain. Units for beginning, intermediate, and advanced students are offered, as well as tailoring, drapery making, and elementary and advanced pattern drafting. Enrollments have been large.

**Extension Service.** Marion L. Fry, home demonstration agent in southern Rhode Island since 1935, is now agent in Hartford County.

**Hartford.** Beatrice Spiker, recently of the Pennsylvania Extension Service, has joined the staff of the Connecticut Dairy and Food Council.

**Seymour.** Janet Miller of Ames, Iowa, has accepted the position at Seymour left vacant by the resignation of Mrs. Helen Mack Velardi, who has gone into business with her husband.

**Recent Marriages.** Eleanor Pike was married on December 24 to Robert A. Arnoldi. She is continuing to teach at Glastonbury High School. Clerna Pierce of Guilford and Joyce Larson of Old Saybrook resigned to be married in December. Virginia Daley of Ames, Iowa, will complete the term at Old Saybrook. Mildred Carson of Winsted became Mrs. Donald A. Byers in December. She is continuing her teaching.

### *Delaware*

**Women's College, University of Delaware.** Instead of making clothes from new material for local needy children, the junior clothing class is this year salvaging clothing from students and making it over into children's garments for foreign relief. Emphasis is being placed on warm outer clothing. Every scrap left from making the larger garments will be utilized for mittens, moccasins, caps, scarfs, and toys.

Betty Jo Painter, '43, has been promoted to

junior chemist in the Quartermaster Corps. She is stationed in Philadelphia. Georgiean Geanopulos and Dorothy Simmons have appointments as dietetic interns at Johns Hopkins Hospital.

**New State Course of Study.** Delaware home economics teachers are now using the new course of study which has been in preparation for six years. During that time, there have been several tryout periods to see if the work as planned gave satisfactory results in the classroom. The new course of study was planned jointly by committees of teachers, the home economics personnel of the University of Delaware, and the state supervisor of home economics.

**Public Schools.** Mrs. Hazel D. Noonan, who has taught in Wilmington and served on the Extension Service staff, has joined the faculty of the Alexis I. du Pont School.

Honora Fudala, a graduate of State Teachers College, Mansfield, Pennsylvania, is teaching at the Delaware City Junior High School.

Sara Short, Norma Hollis, and Mary Alice Hancock, '43 graduates of the University of Delaware, are teaching at Georgetown, Richardson Park, and Middletown, respectively.

Pauline S. Williams, graduate of the Teachers College in Indianapolis and Columbia University, is teaching in both the junior and senior high schools at Millsboro.

Louise Vaughn, a '43 graduate of Madison College, is a new staff member at Laurel High School.

### *District of Columbia*

**D. C. Home Economics Association.** "Our Neighbors in the Other Americas" was the theme of the program at the Washington Gas Light Company on December 9. Marjorie M. Heseltine, nutrition consultant of the U. S. Children's Bureau, discussed the nutrition and health of children in some of the South American countries. Miss Heseltine had only recently returned from a three-month trip to South America, where she served as technical assistant in nutrition to the U. S. representative on a special committee of the American International Institute for the Protection of Childhood, which met in Montevideo, Uruguay. Miss Heseltine also spent some time in Argentina, Peru, and Paraguay. A sound film in technicolor, "Our Neighbors Down the Road," was shown.

*The HEWIB's Section* held a special meeting at the YWCA on January 19. Marie Sellers, chairman of the home economics in business department of the AHEA, was the speaker. Six meetings are planned for this year. Several members are working with the District nutrition committee on community war service assignments.

*The Homemakers Section* has planned panel discussions by members for all six of its meetings. It is, however, having assistance on the various panels from specialists and others concerned with the special topic under discussion. Beulah Coon of the U. S. Office of Education has been especially helpful with program plans. Each member is asked to participate on at least one panel.

*The Social Welfare and Public Health Section* has planned its monthly meetings this year around a series of talks by its own members. All who have had interesting experiences or have done outstanding jobs in the field of nutrition will be asked to contribute to this series. The meetings are held at the homes of members.

### *Florida*

**Florida Home Economics Association.** "Make the most of local resources for better family living" was the theme of the newsletter sent to members to inform them of Association activities. Advantages of belonging to the Association were pointed out as well as the responsibilities of members. Many program suggestions were included for district chairmen as well as suggestions on organizing district membership. Activities of the AHEA on behalf of its membership were outlined.

**State Department of Education.** Instead of a state-wide conference for home economics teachers, sectional conferences were held in different areas with staff members from Florida State College for Women and the State Department of Education as consultants. The new "Wartime Program in Home Economics Education," developed as a guide for teachers, was used as a basis for group discussions, and committees decided upon skills desirable to attain at different grade levels.

**University of Tampa.** A number of lectures in the new course in nursery school education will be devoted to preschool nutrition. During the second semester a special course in preschool nutrition will be offered for nursery school teachers.

**Extension Service.** Three county home demonstration agents have been promoted to the state office staff: Mrs. Edith Y. Barrus, district agent for southwest Florida; Mrs. Bonnie J. Carter, assistant supervisor of the Emergency Farm Labor Program, Women's Land Army; and Joyce Bevis, extension specialist in clothing and textiles.

There have been 10 recent changes in county personnel.

**School Lunch Program.** The state supervisor of school lunch programs, Mrs. Thelma Flanagan, reports that 60 out of the 67 counties in Florida are participating in the FDA program for school lunches. An average of 64 per cent of the total funds is spent for food, 29 per cent for labor, and 6.6 per cent for miscellaneous items.

The State Board of Health and the State Department of Education have worked co-operatively in the preparation of the section on school lunch sanitation for the Florida Sanitary Code. Copies of this can be secured upon request.

### *Hawaii*

**Territorial Nutrition Committee.** Jamie Cameron, formerly an instructor of home economics at McKinley High School, is the committee's new executive secretary.

**University of Hawaii.** Carol Mitchelson has been promoted to director of food service, and Evangeline Marshall, formerly in charge of food service at the Kamehameha School for Girls, has been appointed assistant director.

Martha Swoyer Reilly, formerly director of food service, is now field supervisor of the food and training program of the emergency feeding division of the Office of Civilian Defense.

**Victory Garden Show.** To encourage preservation of surplus foods, the Department of Public Instruction and the Extension Service sponsored an exhibit of fruit, vegetables, poultry, and fish canned by students and women of the Territory. The nutritive value of mung, soya, and other varieties of beans and methods of sprouting them were featured in the American Red Cross display. The home service department of the Honolulu Gas Company demonstrated proper cooking of soya bean sprouts as well as improvised equipment for sprouting beans at home.

**Extension Service.** An exhibit of dolls, toys, and Christmas presents and papers which could easily be made at home was displayed before adult classes of the Free Kindergarten Association, neighborhood groups organized by the OCD in Honolulu, and extension women throughout the Territory. It was prepared by Mrs. Alice Trimble and Mrs. Lillian Schwartz.

### *Idaho*

**University of Idaho.** Susan Burson of the U. S. Office of Education and Lillian Navratil, state supervisor of home economics, were campus visitors from December 6 to 8. Miss Burson led a series of home economics staff conferences.

In co-operation with the Moscow Branch of the Red Cross, home economics students have planned and arranged large window displays showing nutrition, home nursing, and other activities.

**Extension Service.** At the Home Demonstration Conference held in Moscow from February 21 to 28, plans for the state-wide food and clothing programs for 1944 were made.

During January, Mildred Haberly, nutrition specialist, conducted in southern Idaho leader-training meetings on wartime meal planning.

### *Illinois*

**Illinois Home Economics Association.** Since the annual meeting had to be canceled, plans have been made for a state-wide network of "What's New" round tables, each in an easily accessible center.

**Normal University.** To climax Food Fights for Freedom month, the University Red Cross Canteen unit sponsored for the assembly on December 1 a play entitled "It's Up to You" and a film co-ordinated with it. The script and film were secured from the FDA.

**Northern Illinois State Teachers College.** The state supervisor of home economics and Rua Van Horn of the U. S. Office of Education conferred with the home economics staff from November 29 to December 4 on ways to enrich individual courses and improve the whole home economics curriculum.

**University of Illinois.** Courses in occupational therapy are now offered at the University. Beatrice Wade is in charge of them.

At the meeting of the Association of Land-Grant Colleges, Lita Bane was appointed a member of the committee on experiment station organization and policy.

Twenty-four alumnae who are Army hospital dietitians hold second lieutenants' commissions. Six are already overseas. Dorothy Wiltamuth, '41, and Katharine Manchester, '38, are first lieutenants. The latter is in the Office of the Surgeon General. One alumna is with the Red Cross in India and another in Egypt.

**Health Workshop.** Home economists participated with health groups and social workers in a workshop conducted by the U. S. Office of Education in Chicago in November to consider ways to improve family health.

**Home Safety Program.** More than 5,000 families are enrolled in the Safe-Home program sponsored by the Extension Service, the Illinois Home Advisers' Association, and the Illinois Home Bureau Federation. Gladys Ward is in charge of the project.

### *Indiana*

**State Department of Public Instruction.** Indiana is planning two regional meetings to prepare county leaders to assist in the local food production training program. City and county superintendents will co-operatively select from each county an interested home economics teacher and an agriculture teacher to attend these meetings, and they will be accompanied by at least one school official, thus making a total of three official delegates from each county. The entire food production training program will be discussed with emphasis on production, conservation, and processing of food for family use; farm machinery repair and maintenance; and farm labor training for nonfarm, in-school youth.

Committees of home economics teachers under the direction of the district supervisors of home economics are compiling bulletins to serve as guides to teachers on preservation of the home food supply, safety education for the home, and the school lunch program.

**Purdue University.** The home economics staff felt keenly the loss of Marion L. Mattson, director of the nursery school, who met with a fatal automobile accident on November 1. Her mother also was killed in the accident.

Through a Gripsholm passenger, it has been learned that Ruth Darby is safe in Manila, P.I., and is still carrying on her work there although a prisoner of the Japanese. Dr. Darby received her degree in nutrition at Purdue and was on the staff of the University of the Philippines at the beginning of the war.

**Saint Marys-of-the-Woods College.** Martha McKenna, a graduate of Kansas State College, is the new instructor in clothing and textiles.

### *Iowa*

**Iowa State College.** At the annual convocation in observance of Ellen H. Richards Day, a portrait of Dean Genevieve Fisher was presented to the home economics division. Preceding the ceremony, home economics students reviewed the progress of home economics at the College. The January issue of the *Iowa Homemaker*, student publication, featured the convocation and carried a reproduction, in color, of the portrait.

The five foreign students in the home economics division this year represent the Philippines, Costa Rica, Puerto Rico, Uruguay, and Colombia.

The child development department has taken over supervision of the Ames Day Care Center, thus providing additional facilities for the increased number of majors in child development.

**Iowa State Teachers College.** The home economics faculty is continuing its weekly broadcasts on conservation. Agnes McClelland's discussions of conservation of clothing, clothing equipment, and household textiles will be followed by Elizabeth Nyholm's series on "Children in Wartime."

Elizabeth Sutherland served as chairman of the Iowa Home Economics College Teachers Conference on January 14. Discussions centered on improvement of the college home economics curriculum.

**University of Iowa.** The University's part in the Food Fights for Freedom campaign has consisted of a series of public lectures on problems of food production and distribution followed by panel discussions. The program was sponsored by the Citizen Service Corps, OPA, and FDA. Sybil Woodruff is local nutrition chairman.

**Extension Service.** Conie Foote has returned as extension nutritionist after serving as regional home management supervisor for the FSA in Nebraska. Marie Budolfson is a new home management specialist. Esther Taskerud is assistant state girls' 4-H club leader. Lora Hilyard is the new clothing specialist, and Mrs. Bernice Gross is 4-H home efficiency specialist.

### *Kansas*

**Friends University.** Mrs. Margaret Bair has succeeded Gladys Cronemeyer as head of the home economics department.

The department's new quarters include a redecorated sewing and fitting room, a kitchen with four new ranges and other modern equipment, a dining room, the regular lecture room, and an additional room for laboratory work and study.

In co-operation with the Red Cross the department is offering a course in Home Nursing and Child Care. Students will do nurses' aid work in the Wichita Hospital.

**Kansas State Teachers College, Hays.** Norma Geiss began her institutional training at Michigan State College on February 1.

**Kansas State Teachers College, Pittsburgh.** Each vocational home economics student during her period of supervised teaching leaves the regular home economics classroom for two successive days and reports to the training school lunchroom for work in preparing and serving food. On other days the students join the children at the tables and observe the supervision given them. The experiences gained during these days are discussed and evaluated with B. Lillian Nelson, teacher trainer. Problems in record keeping and business management are taken up directly with Annie Mariott, director of the training school lunchroom.

Martha Jane Hughes won the Missouri 4-H clubs' first prize for home preservation of food during 1943 and a trip to Chicago.

**Southwestern College.** The two-heddle loom owned by the domestic art department and heretofore used only by the textile class has been used this year by a number of other students to make attractive rugs for their rooms.

**University of Kansas.** Lucy McCormak spoke on "The Farm Home and the War" at the Cowley County Institute in Winfield in November.

**HEWIB's.** Betty Boyle, home service director of the Wyandotte County Gas Company, has joined the WAC.

### *Louisiana*

**State Department of Education.** The 51 parish conferences for home economics teachers held during the fall were attended by 432 teachers and school officials. Their purpose was to further adjust the homemaking program to meet wartime needs of youth and adults more effectively and to give teachers an opportunity to discuss problems relating to their own programs.

Evaluation of the community school lunch programs in 11 selected parishes was scheduled as part of the January and February programs of work for members of the home economics staff, co-operating with the program analyst services division of the Food Distribution Administration.

Marion Faegre of the U. S. Children's Bureau was in Louisiana the first week in December for consultation with Clyde Mobley and Alma Schmalzrid on the extended school service program and to help with the training of volunteer workers in the program and the wartime nursery schools in Baton Rouge, New Orleans, and Shreveport. About 150 junior and senior high school girls have been taking special training in child development courses to prepare themselves to assist in the nursery school program in Baton Rouge and Shreveport.

**Louisiana Polytechnic Institute.** Dean Helen Graham retired on December 21 after having been affiliated with the faculty for 42 years. She has made a notable contribution not only to home economics at Louisiana Tech but also to the whole field of home economics instruction. She is often referred to as "dean of home economics instruction in Louisiana." Her successor is Mrs. Alice Millet Graham, who has been on the staff of the University of Tennessee.

**Southwestern Louisiana Institute.** Helen Lowe, a graduate of Louisiana State Normal College and Louisiana State University, is the new director of the student center. She succeeds Barbara Wild, who resigned in November to be married.

Elsie Kendrick, an alumna who recently has been teaching in the high school at Thibodaux, and Shirley Newacheck, a graduate of Texas State College for Women, are new assistant dietitians in the dining halls.

### *Maine*

**University of Maine.** The fall freshman home economics enrollment was slightly above the previous maximum.

A new 12-week-term system has been instituted in step with the ASTP, and acceleration through a summer term is available but not required. The three war courses, planned and publicized last spring, did not interest students. These were two-year programs in institution foods, war industries, or child care, with enough basic home economics so that students could transfer to degree courses if they chose.

Phyllis Gough, who received her MS at Iowa State College in 1943, has been appointed instructor in home management and housing and is in charge of the home management house.

Beulah Coon and Berenice Mallory of the U. S. Office of Education were on the campus from November 12 to 15 for work with Margaret Nesbitt and Calista Kelley White on their research projects in home economics education.

Merna Monroe, on leave as assistant home economist in the experiment station, is a WAC and using her science training in photographic work at Camp Pinedale in California.

Mrs. Beulah Wells, '26, a former member of the teaching staff, and Celia Goos, '43, have been appointed research assistants in home economics in the experiment station. They are working

under Dr. Mary Clayton on phases of the national co-operative project on the conservation of the nutritive value of foods.

**Farmington State Normal School.** Myrtie E. Kinney has joined the staff as teacher of foods, nutrition, and consumer education. She taught at the School of Domestic Science in Boston for 14 years and last year was connected with Dean Junior College in Franklin.

### *Massachusetts*

**Massachusetts Home Economics Association.** Speakers at the soy symposium in January included Dorothea Nicoll, Massachusetts Department of Public Health; May E. Foley, Extension Service; and Janette Kelley, Lever Brothers Company. Emma M. Tigbe of the Boston Edison Company arranged for the meeting place and supper.

Plans are under way for the joint annual meeting with the Worcester Association in April.

*Eastern Massachusetts Association.* The January meeting was on wartime problems of youth. Judge Emma Fall Schofield spoke on "Piloting Modern Youth." Mrs. Clara L. Walsh of Newton Center is president of the Association.

**Simmons College.** A new graduate program in public health nutrition is being offered co-operatively by the College and the Harvard School of Public Health. Enrollment is limited to six students.

**Extension Service.** "The Extension Service Goes Forward in Wartime" was the program theme of the 4-day annual conference in December.

**Community School Lunch Program.** Anna A. Kloss of the Massachusetts Department of Education, who is serving this year as supervisor of the FDA community school lunch program, reports that to date about 100 cities and towns in the commonwealth are carrying on this program in one or more of its phases. Margaret Lovely, FDA nutritionist, is working with the parochial schools.

Mrs. Annette T. Herr, state home demonstration leader for the past 17 years, retired in February. Her deep understanding of what home and rural life may mean and her keen appreciation of people and their opportunities to develop to their fullest capacities have been an inspiration to all extension workers and rural leaders.

**Home Food Production Program.** The Governor's Committee on Home Food Production and Food Preservation has met and worked out plans and policies for the 1944 program. This year there will be an active committee in each of the 352 towns and cities in the state.

**Department of Public Health.** Frederica L. Beinert, former nutritionist in the Division of Child Hygiene, is now director of nutrition in the Chicago chapter of the American Red Cross.

Florence I. Gates, former manager of the cafeteria and home economics teacher in Andover High School, is the new school lunch specialist in the Division of Child Hygiene.

**Social Work Institute.** A number of home economists participated in the Massachusetts Institute of Social Work which was held at the Hotel Statler in Boston from November 29 to December 2.

Margaret Mead led the discussion group that considered "American Cultural Patterns—What and Whither." One question discussed at length was the training needed for social workers who are interested in preventive as well as remedial work.

### *Michigan*

**Kalamazoo Public Schools.** The junior high school home economics teachers of Kalamazoo tried to encourage understanding of both home and school life in the community by setting aside a week known as "Christmas Sister Week." At this time each home economics student invited into the class a younger girl to be her Christmas sister. These two girls made plans together for attractive Christmas cookies and then prepared them. Thus, the older girls had an opportunity to come in contact with the problems a small child presents while working in the home, and the younger child had a chance to realize the value of any small home tasks she could undertake. The younger girl also had a preview of the type of work she would be doing in the foods laboratory in a few years.

**Northern Michigan College of Education, Marquette.** Survey courses in clothing and nutrition have been made available to all students. The content of several courses has been altered to take into consideration such wartime influences as shortages and time and money problems.

The clothing classes co-operated with the family welfare organization by remodeling clothing to be used as Christmas gifts to the needy.

Mrs. Ruby Richey is serving as chairman of the Upper-Peninsula nutrition committee, and Jane Bemis is chairman of the Marquette consumer interest committee.

### *Mississippi*

**Extension Service.** During the staff conference in January at State College a lecture-demonstration on nutritional deficiency diseases was conducted by Dr. D. V. Galloway of the Mississippi State Health Department and Dr. Walter Wilkins of the U. S. Public Health Service.

May Cresswell represented the southern region at the meeting of the organization and policy committee of the Land-Grant College extension group in Washington, D. C., from January 11 to 13.

*Negro Section.* The reports of 44 Negro home demonstration agents show that in their counties the food preservation program for Negroes resulted in totals of 3,381,004 quarts of canned fruit and vegetables, 133,555 quarts of canned meat, 217,583 pounds of dried products, 5,519 pounds of brined meat, and 46,681 quarts of brined vegetables. These figures represent the combined report of 23,718 women.

In the same counties 18,880 4-H girls were enrolled for canning instruction, and of that number 7,378 completed the required work. These reported 538,099 quarts of canned products, 10,562 other containers of sweets and pickles, and 2,419 pounds of dried fruits and vegetables.

**Community Canning Centers Planned.** The state supervisory and teaching staff in vocational agriculture and homemaking is planning to establish 50 community canning centers under the supervision of homemaking and agriculture teachers. These centers will supplement the small canning equipment now available in schools.

**School Lunch Program.** Eleanor Wilson, state director of the school lunch program, reports that Mississippi now has 528 rural schools qualified to receive FDA funds and 130,000 children to be served. In addition, the large towns have their own lunch programs.

### *Missouri*

**Missouri Home Economics Association.** Florence Harrison, president of the Association, helped the Kansas City home economists organize a greater Kansas City Home Economics Association, which includes all home economists in Kansas City, Missouri, and Kansas City, Kansas, and in the surrounding communities. Officers were elected at the January meeting.

The food and nutrition division of the Missouri Association, of which Margaret Spader of Kansas City, Missouri, is chairman, plans to issue six newsletters to the home economics workers in the state and the county nutrition chairmen. Two have already been distributed.

Two new divisions of the Association have been organized: one on housing with Alice Mae Alexander of Buffalo as chairman, and one on family relationships and child development with Mary Louise McIlvaine of Stephens College as chairman.

Mary L. Johnson of Cape Girardeau, district supervisor of the FSA, is the new chairman of the Association's division of social welfare and public health.

**University of Missouri.** The home economics staff has been happy to welcome back Mrs. Adella Ginter, a former staff member recently appointed to teach textiles.

**Extension Service.** Mary E. Robinson, former clothing specialist, was married to George Francis Robertson on November 20. They are now at home at Glenmara Farm, Owensville. Helen Church, who has been in charge of the state 4-H club work, is the new clothing specialist.

Edith Lawrence, formerly home demonstration agent in Lafayette County, and Cleta Null, formerly agent in Johnson County, have been granted state public health scholarships for advanced work in nutrition. Miss Lawrence is at Yale and Miss Null at Duke University.

### *Montana*

**University of Montana.** Mrs. Georgia Roosevelt, formerly on the staff at Montana State College, is now teaching at the University and at the Home Living Center in Missoula.

**State Department of Education.** To create greater interest in war work among all Montana high school clubs, the division of home economics called 12 district conferences of club members and their sponsors. The meetings were held as much as possible at the time of the 8 district meetings of the Montana Education Association or the district meetings of homemaking teachers. Nearly 1400 girls from 93 clubs were thus able to discuss the place of club work in the national war effort and organize for active service. District officers were elected.

An all-state conference of homemaking teachers has not been held for two years as district meetings have taken its place. The teachers, however, have requested a workshop credit course in home furnishings next August similar to the one in advanced tailoring held at Montana State College last summer.

# *To help you co-operate with the* GOVERNMENT NUTRITION PROGRAM...

***Send for this revised Free booklet, "Help Make America Strong."***

HERE IS an attractive, illustrated teaching aid . . . a booklet which will help you to emphasize the important subjects of good nutrition and correct diet.

This booklet will help you explain about food essentials and what they do. It tells about the vitamin content of various foods. In addition, it includes a colorful illustration of the government Basic-7 Food Chart . . . an easy way for your children to remember important food facts needed every day.

Many home economics teachers are now using this booklet as a helpful guide for numerous classroom talks on nutrition and proper food habits. They find it a big help in giving closer co-operation and support to the Government Nutrition Program.

**New Menus for every season**

This new edition of "Help Make America Strong" also contains a week's balanced menus — based on available foods — for every season of the year.

J-3/44

**HOME ECONOMICS SECTION**
**AMERICAN CAN COMPANY**
**230 Park Avenue, New York 17, N. Y.**

Please send me ( ) copies of your newly revised booklet, "Help Make America Strong."

NAME_____

SCHOOL_____

STREET_____

CITY_____ STATE_____

# *Nutrition Teachers...Take a Bow!*

The state of the world today throws a spotlight on the value of food education. For we are seeing food function as a mighty weapon of war . . . a mighty potential for peace. We know that our wise use of food fights on the side of the angels—for freedom.

In the home, menus can no longer be chosen solely by taste preferences. Every housewife needs to *know* more about food and food values . . . needs training in willingness to change family food patterns and accept alternate foods of similar nutritive value.

So the work of food educators is important as never before—and the makers of Nucoa nominate for glory those who in class rooms, consultation offices, on the radio, on lecture platforms, by written word, are guiding America's homemakers in feeding their families well under today's necessary food dislocations and shortages. An

**Nutritious NUCOA . . . *a dependable***



(In writing to advertisers, please mention the journal—it helps.)

important phase of this educational work has been the spread of knowledge about margarine, to break down ignorant prejudice against this wholesome food which can so ideally supplement our butter supply.

One thing you as educators will want to be completely informed about, we believe, is the kind of margarine you recommend. For many brands are being made—and they are not all alike. There is a skill to making excellent margarine which is not easily mastered. The makers of Nucoa have acquired this skill through leadership over nearly half a century in producing the finest type of margarine. We'd welcome having you familiarize yourself with Nucoa's dependable goodness through serving it daily in your own home. And we'd welcome a visit from you to our laboratory in Bayonne, New Jersey (one of the finest in the world), where the appetizing and nutritional uniformity of Nucoa are scientifically controlled.

*A Product of THE BEST FOODS, Inc.*

***source of VITAMIN A***

**NUCOA'S RECORD OF LEADERSHIP IN DEVELOPMENT OF MODERN MARGARINE**

**First** margarine to be made with *vegetable* oils exclusively.

**First** nationally distributed margarine to be made only with vegetable oils from farms in the U. S. A.

**The skill acquired through long experience in selecting and treating oils for margarine has much to do with the texture characteristics and fine flavor which make Nucoa so popular. We refine our own oils *on the premises*, fresh each day, so that their flavorless freshness is assured in each pound of Nucoa. And of the 102 daily laboratory tests which assure Nucoa's uniformity, 54 are made on the oil alone.**

And Nucoa is always sweet and fresh. It is freshly made the year around, on order only. There is no "storage" Nucoa.

**First** margarine to be fortified with protective VITAMIN A.

**First** margarine nationally advertised. Nucoa has taken the educational lead in explaining margarine's nutritional values.

These are some of the reasons why Nucoa is **First** in sales volume . . . enjoyed in millions of homes throughout the United States.

U.S. NEEDS US STRONG
EAT THE BASIC 7 EVERY DAY
7 BASIC FOOD GROUPS ARE NEEDED DAILY FOR GOOD NUTRITION
This food is included in....
NUTRITION GROUP
SEVEN

# *Will families really budget?*

## "Yes" Say the Budgeteers—Their Example Gives Encouragement to Every Teacher Interested in Family Budgeting

PROBABLY every teacher who gives courses in budgeting sometimes wonders how much good her efforts really do. Do families actually use budgeting plans? Or are most attempts at budgeting little more than good resolutions? We feel that our experience with the Budgeteers gives at least a partial answer to these questions.

What people do about budgeting has interested us for a long time. We know from our close contact with thousands of families troubled by money problems that budgeting is sadly needed in many homes. We know also that of all the booklets we offer consumers our budget booklets have always been the most popular. Spontaneous demand for these booklets shows that families really do want to put their finances on a business basis. But do many succeed?

About a year ago we began enclosing in the Budget Calendar a return post card suggesting that families and individuals making serious use of the Calendar might register with us as "Budgeteers." We promised to encourage them in their efforts by sending them a booklet or letter from time to time. We welcome letters and questions from Budgeteers and write them personal answers. Budgeteers who complete a year of budgeting receive special recognition.

During the past year we have been privileged to correspond with more than a thousand Budgeteers. Our list of correspondents is constantly growing. They tell us about their problems and how they are meeting them. We offer encouragement and suggestions, often telling how someone else has handled a similar situation.

Many Budgeteers tell us what they have achieved in their finances through intelligent planning. Others write to express gratitude for the guidance and assistance they feel that they have received.

Budgeteers who have completed a full year of planned spending send us their Budget Calendars for review. Here is eloquent proof that families really will budget. These dog-eared booklets, many filled with erasures and corrections on almost every page, would be an inspiration to every teacher trying to improve family finances.

Every indication points to a steady growth in enrollment of Budgeteers during 1944. We hope that their example will lead many other families to have their own spending plans.

Perhaps you have not yet seen the Budget Calendar. This is a budget plan that users tell us overcomes the weaknesses of most traditional ways of budgeting. We will gladly send you a copy. Just send us the handy coupon.

**HOUSEHOLD FINANCE**
*Corporation*
ESTABLISHED 1878

**Headquarters: 919 North Michigan Ave., Chicago 11**

One of America's leading family finance organizations with 316 branches in 205 cities

*Research Dept. JHE-C*
HOUSEHOLD FINANCE CORPORATION
919 N. Michigan Ave., Chicago 11

Please send me a free copy of The Budget Calendar.

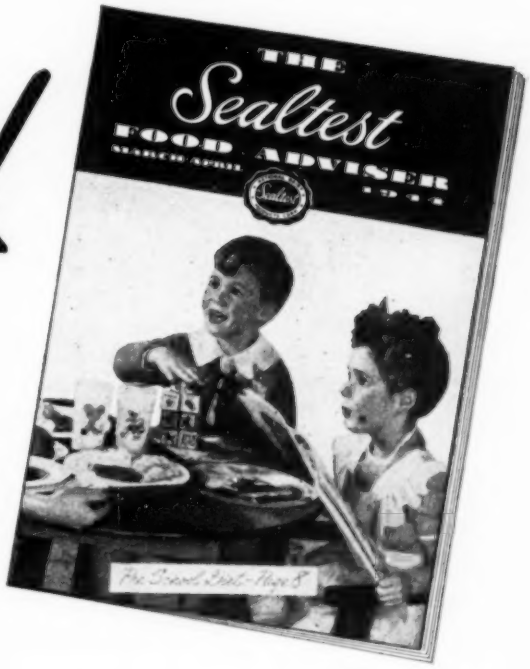
*Name* .....

*Address* .....

*City* ..... *State* .....

Detroit Public Library

# Just out!




## More nutritional aid for Teachers and Housewives

### FEEDING THOSE *Pre-school* CHILDREN

An authoritative article filled with practical nutritional hints on feeding those active youngsters who have not yet toddled off to school. Includes suggestions for foods to be included in their daily diet, foods which should be avoided, and suggested menus for one day.

### *Lent* POSES ITS PROBLEMS

How to plan Lenten meals that are delicious and appetizing, and, at the same time, *nutritious*. Original menus, created by the Sealtest Laboratory Kitchen, are included.

### SOME FOODS JUST *Go together*

Here's a complete chart that *automatically* plans your menus. Shows the popular meat courses and gives some vegetables, salad, sauces, bread and dessert which go with each. A real meal-planner that you'll want to refer to again and again.

### TOPS IN *Food Value*

A factual article on the place occupied by *milk* in modern nutrition; written by A. D. Burke of the Alabama Polytechnic Institute. Professor Burke takes milk apart, and in common-sense language analyzes the part each element plays in the human body.

### *Free Copy*

All of these articles, plus more original Sealtest recipes, are contained in the new Food Adviser. May I send you a FREE copy? Just send me your name and address and I'll mail it to you immediately.

*Sincerely,*
MARY PRESTON
SEALTEST LABORATORY KITCHEN
230 Park Ave., N. Y. 17, N. Y.

NATIONAL DAIRY Sealtest PRODUCTS CORP.

*Sealtest, Inc. and the Sealtest Kitchen are divisions of National Dairy Products Corporation.*

**Don't miss Joan Davis in the Sealtest Village Store Program, Thursday Evenings, NBC Network**

# HELP—for Home Economics Teachers

NOW comes expert, understanding help to save you lots of time and worry — to help make cooking demonstrations most interesting — and to provide this help in handy reference form. Now, by well-planned demonstrations you can make your classes most intriguing and dramatic. And this new help gets down to interesting details, such as — arrangement of the demonstration table — list of utensils you will find handy — typical demonstration recipes — and what to include for meals for one day.

These practical helps, and many more, are included in "How to Plan a Food Demonstration." This valuable work is a contribution of the Kellogg Company, as a teacher's aid, and to extend the government's own nutrition program.

**IT'S FREE.** Send for the booklet "How to Give a Food Demonstration." Write Dept. JHE 43, Kellogg Company, Battle Creek, Michigan.

Kellogg's CEREALS

ALL KELLOGG CEREALS are made from whole grain, or are the equal of whole ripe grain in nearly all the protective food elements that have been declared essential to human nutrition.

*Plan for TOMORROW with*

# *SHELDON*

## HOMEMAKING FURNITURE

Frankly—we want to talk things over. You have intimate knowledge—the "know what" of equipment changes which tomorrow's training for Homemaking will demand. We have the successful, practical experience—the "know how"—in planning and building furniture for Homemaking training. Through working together—planning together NOW, we can prepare to meet tomorrow's Homemaking Equipment requirements.

Take time now to write and request that our Field Engineers call—you will find these engineers keenly alert to your needs. You will find them capable in helping you visualize and reduce to practice the ideas which you are formulating.

E. H. SHELDON & CO.
732 NIMS STREET MUSKEGON, MICHIGAN




(In writing to advertisers, please mention the journal—it helps.)

© Borden Co.

"BUT MOMMY," faltered little Beulah, "today's my first exam and I can't help being nervous."

"We cows who work for Borden," laughed Elsie, "are *always* taking examinations. You'll get used to them."

"Why should I have to get used to them?" pouted Beulah. "Aren't those Borden inspectors ever satisfied?"

"They're never satisfied with anything less than perfection!" smiled Elsie. "That's why we all have to be inspected regularly.

"You see, our milk and cream go into Borden products like Evaporated Milk, cheese, Beta Lactose, and Biolac. And that milk and cream must be as pure as the very finest cows and laboratory controls can make them."

"Gee!" sighed Beulah, wistfully, "do you think I'll ever be that good?"

"Of course, dear!" beamed Elsie. "You're a Borden girl, and if you're Borden's, you've *got* to be good!"

***—if it's Borden's, it's got to be good!***

# 88% OF THE HOME ECONOMICS TEACHERS SAY *The Average Person Eats Too Little for Breakfast* *82% say the average breakfast is poorly balanced*

In a nation-wide cereal study by Elmo Roper, an eminent authority in his field, a large number of home economists were consulted. Along with medical and nutritional authorities these teachers recommended that for better nutritional health the morning meal should provide from ¼ to ⅓ of the day's total food requirement, not only in calories, but so far as possible in all essential nutrients as well (protein, carbohydrate, fat, vitamins, and minerals).

As a basic breakfast pattern, fruit, cereal, milk, bread, and butter are recommended. This basic meal is easily augmented by the addition of eggs, breakfast meats, preserves, etc.

The contribution made by the dish of cereal suggested—1 oz. of cereal (whole-grain or enriched or restored to whole-grain values of thiamine, niacin, and iron) with 1 teaspoonful of sugar and ½ cup of whole milk—shows the following composite averages: 205 calories, 7 Gm. of protein of high biologic value, 33 Gm. of carbohydrate, and 5 Gm. of fat. In addition it contributes notable amounts of thiamine, niacin, riboflavin, iron, and calcium.

Only intensive teaching, during its formative years, will finally be able to influence our population to change from the skimpy morning meal to the nutritionally adequate breakfast. To aid in this effort, the Home Economics Director of the Cereal Institute has prepared a number of teaching aids which will be found of real help in presenting this interesting subject to the classroom. Teachers are cordially invited to send for the packet described in the box below.

***Send for these CLASSROOM TEACHING AIDS***

The "Better Breakfast" packet offered by the Cereal Institute provides:

1—24 x 36 Wall Chart, showing how to organize the Better Breakfast

1—Teacher's Explanatory Folder

1—"What is a Good Breakfast" Folder

and as many of the following as requested:

....Students' Notebook Folders

.....Students' Work Sheets

*The presence of this seal indicates that all nutritional statements in this advertisement have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.*

ACCEPTED AMERICAN MEDICAL ASS'N

CEREAL INSTITUTE, INC.

135 SOUTH LA SALLE STREET · CHICAGO 3

CEREAL INSTITUTE, INC. J
135 S. La Salle Street, Chicago 3

You may send me one of your "Better Breakfast" Packets (including ..... each of Students' Notebook Folders and work sheets).

*Teacher's Name* .....

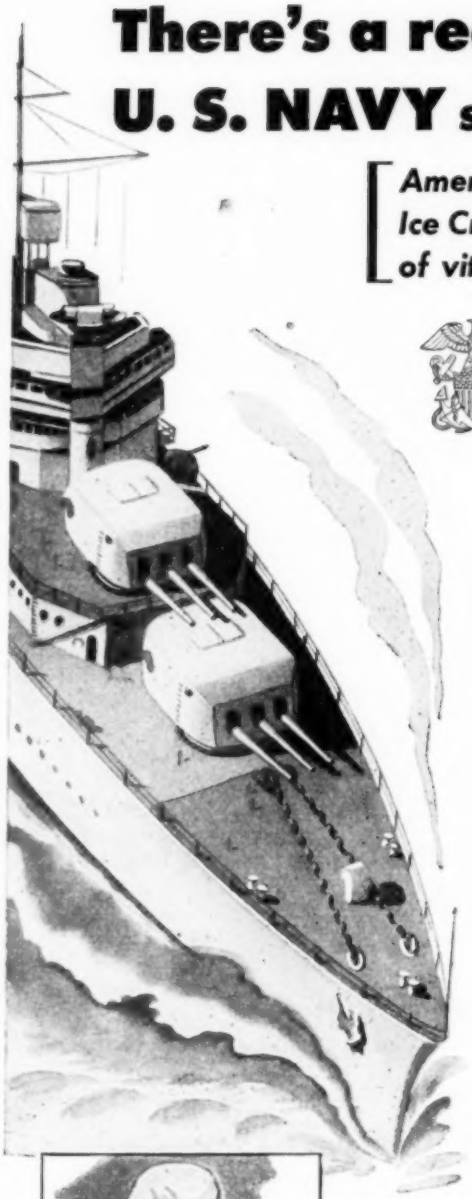
*School* .....

*Address* .....

*City and State* .....

# There's a reason why the U. S. NAVY SERVES ICE CREAM

*America's favorite dairy food—Ice Cream—is an important source of vitamins, proteins and minerals*



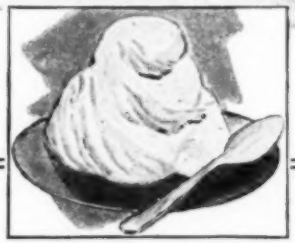
Navy menus don't just *happen!* Every food included in the diet of Navy personnel, ashore or afloat, is there *for a purpose.* It is there because it has been okayed by the staff of experts at the Subsistence Research Laboratory of the U.S. Navy in Chicago for making an important contribution to the health, strength, and morale fighters must have to win!

It is significant that ice cream ranks high on Navy menus. It is not only a favorite food, but it also supplies valuable vitamins, proteins, and minerals. For that reason, wherever practical, the Navy gets ice cream!

Throughout the world—over the seven seas—the talents of the Subsistence Research Laboratory of the U. S. Navy are directed to keeping our Navy a strong, healthy, hard-hitting force; making sure it gets the foods the men like—the foods they need for victory!

**Ice Cream Is a Fighting Food**

Ice cream is a favorite with all branches of our armed forces—and it is important that they get this valuable food. So, if you aren't always able to get all the ice cream you want—remember, you're "sharing" this nutritious food with our fighters.



**NATIONAL DAIRY COUNCIL, 111 N. CANAL ST.**
**CHICAGO 6, ILLINOIS**

**FOOD VALUE OF ONE SERVING OF VANILLA ICE CREAM**

| CALORIES | PROTEIN Gm. | CALCIUM Gm. | VITAMIN A I.U. | THIAMIN Mg. | RIBOFLAVIN Mg. |
|---|---|---|---|---|---|
| 200 | 3.9 | 0.131 | 339 | 0.038 | 0.105 |

***An out-of-the-ordinary dessert treat everyone will enjoy***

Spicy Chocolate Bread Pudding adds just the right touch at either luncheon or dinner. It's amazingly easy to fix, yet it's no more like ordinary bread pudding than spring is like autumn. And what's even more important, this tasty new dessert clicks instantly—from the very first spoonful. Just be sure to use Nestle's Semi-Sweet Chocolate, though. That way you'll get the best results.

Nestle's Semi-Sweet is ideal for any dessert or confection calling for chocolate or cocoa.

SPICY CHOCOLATE
BREAD PUDDING
Made with Nestle's Semi-Sweet
1 cup soft bread, or cake crumbs
½ Economy Size Bar (7 oz.) Nestle's Semi-Sweet Chocolate
1 cup granulated sugar
2 cups cold milk
1 egg
2 tbs. shortening
¼ tsp. salt
¼ tsp. ginger
1 tsp. cinnamon
Add bread, chocolate, and sugar to 1½ cups milk. Cook in double boiler until smooth. Beat egg slightly, add remaining milk, shortening, salt, and stir into hot mixture. Stir and cook until thick. Add spices. Bake in buttered baking dish 20 minutes at 350° F. Serve cold.
NESTLE'S
SEMI-SWEET
CHOCOLATE

Nutritive value . . . or appetite appeal—which influences our food preferences more? With Maltex Cereal, there's no argument—it has both, in full measure. That's why it's such a favorite. This deliciously different, hot, brown wheat cereal is rich in important minerals, and Vitamin B-1 so essential to healthy nerves and good appetite. AND Maltex has an appetizing, nut-like flavor, and a delicious sweetness due to the presence of natural sugars, which appeals to old and young alike.

**LET US SEND YOU THIS DAILY DIET RECORD**

Enables students to plan a week of well-balanced meals or keep a record of meals actually eaten. Widely used by Dietitians and Home Economics teachers. Colorful sheet shows the "Basic Seven" food items recommended by the National Wartime Nutrition Program for Daily Consumption. Order one for each pupil. (Offer limited to schools North of Washington, D.C. and East of Chicago.)

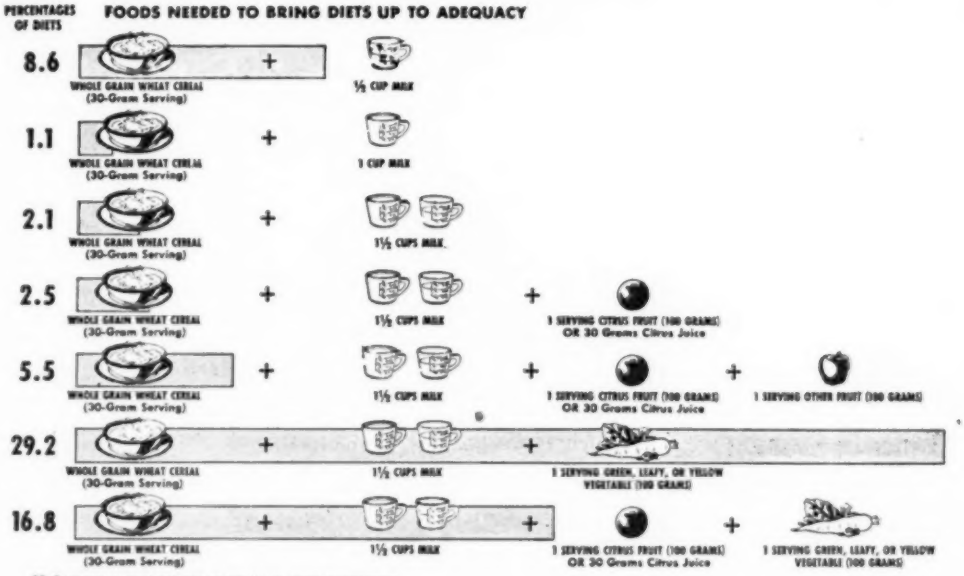
**Home Economics Dept.**
**MALTEX COMPANY**
**Burlington, Vt.**



(In writing to advertisers, please mention the journal—it helps.)

# How Ralston Whole Wheat Cereal Can Help Bring 7 Out Of 10 Diets Up To Adequacy

**Recent human nutrition study made by a well-known research institute indicates that 85.2% of all diets studied are inadequate and that 65.8% can be made adequate by the addition of the simple foods listed below.**


PERCENTAGES OF DIETS
FOODS NEEDED TO BRING DIETS UP TO ADEQUACY
8.6
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
½ CUP MILK
1.1
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
1 CUP MILK
2.1
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
1½ CUPS MILK
2.5
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
1½ CUPS MILK
1 SERVING CITRUS FRUIT (100 GRAMS) OR 30 Grams Citrus Juice
5.5
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
1½ CUPS MILK
1 SERVING CITRUS FRUIT (100 GRAMS) OR 30 Grams Citrus Juice
1 SERVING OTHER FRUIT (100 GRAMS)
29.2
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
1½ CUPS MILK
1 SERVING GREEN, LEAFY, OR YELLOW VEGETABLE (100 GRAMS)
16.8
WHOLE GRAIN WHEAT CEREAL (30-Gram Serving)
1½ CUPS MILK
1 SERVING CITRUS FRUIT (100 GRAMS) OR 30 Grams Citrus Juice
1 SERVING GREEN, LEAFY, OR YELLOW VEGETABLE (100 GRAMS)
19.4 CANNOT BE MADE ADEQUATE BY ANY OF THE ABOVE COMBINATIONS
14.8 ARE ALREADY ADEQUATE

**HOT RALSTON, THE NATURAL WHOLE GRAIN WHEAT CEREAL WITH EXTRA AMOUNTS OF NATURAL WHEAT GERM ADDED, IS THE CEREAL UPON WHICH THE ABOVE COMPILATIONS ARE BASED**

---

**FREE TO NUTRITION TEACHERS:** For teaching purposes, you may get absolutely free a full-color 25 x 38″ wall chart, copy of the above. We will also send you—for distribution to all your students—a supply of 8½ x 11″ folders including the above chart; a complete list of food nutrients with sources, functions, requirements; two pages of new wartime recipes; and up-to-date information on the value of whole grain cereals as replacement foods.

**USE COUPON**

Ralston Research Laboratories
45 Checkerboard Square, St. Louis 2, Mo.

Please send, no cost or obligation, your new special wall chart and 8-page folder with new wartime recipes so I can order in quantity needed for my nutrition classes.

*Name*_____

*Address*_____

*City*_____ *State*_____

**2 KINDS OF HOT RALSTON CEREAL**

**Both are Whole Grain Wheat with ADDED Natural Wheat Germ**

#12

This is part of a series on matters of professional, educational and public interest, primarily related to nutrition and the scientific approach to the food problem, and giving the background of the products of General Mills. These messages are being disseminated through a number of professional and specialized publications . . . in the hope of providing material useful for the readers.

# What is the national nutritional significance of flour enrichment and cereal restoration?

"The increase in the vitamin and mineral requirements of enriched flour . . . will be of far-reaching benefit to the people of the United States." CLAUDE R. WICKARD, *Sec'y. of Agriculture*

VIEWED from the standpoint of the national economy as a whole, foods made from our common grains translate nature's bounty into human nutrients more economically than any other major class of foodstuffs. More than a third of the world's food energy and protein requirements are supplied by cereal grains. In this country, the percentage is slightly less.

Prior to the nutritional discoveries of recent years, and in response to popular demand for more appealing and appetizing forms of cereal foods, many of the principal forms in which this country's cereal grains have been consumed have been those in which, in consequence of the necessary processing, certain of the vitamin and mineral virtues of the original grain have been lost. The vitamin and mineral contribution of such foods has, therefore, not matched their contribution in food energy and protein.

For many years research has wrestled with this problem. The stimulus of the defense program and the discovery—and availability—of certain vitamins in pure form has made possible the correction, in large measure, of this situation. And today, enriched flour and restored cereals are available in every part of the country.

The bars at the left are interesting in this connection. They show the percentage of three B vitamins and iron contributed to the average normal diet* by flour and cereals in the days before flour enrichment and cereal restoration and now.

These bars demonstrate that, thanks to enrichment and restoration, the contribution of flour and other cereal foods in these essential B vitamins and iron is greater than their contribution of food energy and protein.

These are the facts behind the enthusiasm of nutrition authorities for the enrichment program.

Studies have indicated that large numbers of persons do not get adequate quantities of the "protective" B vitamins and iron which enriched flour and restored cereals now supply. The availability of these nutrients in such common foods strikes an effective blow in the interests of better national nutrition, and is accordingly important both for the war effort and the future health of the nation.

*Figures based on 2800 calorie prewar diet . . . assuming our cereal consumption consisted wholly of enriched flour and bread and whole-grain or restored cereals. Current enrichment levels used, and all data adjusted for average losses in cooking.

General Mills, Inc.

*Minneapolis, Minn.*

"Kitchen-tested", Bisquick, Wheaties, Cheerioats, Kix, Drifted Snow, Red Band are reg. trade marks of General Mills, Inc.

*All our family flours are enriched to new, higher gov't. standards, our ready-to-eat cereals restored to whole grain levels. These brands include:* GOLD MEDAL "Kitchen-tested" FLOUR, DRIFTED SNOW FLOUR *(in the West)*, RED BAND FLOUR *(in the South)*, BISQUICK *(containing enriched flour)*, WHEATIES, CHEERIOATS, KIX.



(In writing to advertisers, please mention the journal—it helps.)

# A NEW SLANT ON AN OLD FAVORITE

3 tbsps. butter or margarine
½ cup brown sugar
4 slices Dole Pineapple
Maraschino cherries
or walnuts
⅓ cup shortening
½ cup sugar
1 egg, unbeaten
1 tsp. vanilla
1¼ cups sifted flour
¼ tsp. salt
1½ tsp. baking powder
½ cup syrup from Dole
Pineapple Slices

**Topping:** Melt 3 tbsps. butter or margarine in an 8-inch square pan, sprinkle with ½ cup brown sugar; arrange over sugar 4 slices Dole Pineapple, with halves of maraschino cherries or walnuts in centers.

**Cake Batter:** Gradually add sugar to shortening, creaming till fluffy. Add egg and vanilla and beat well. Add alternately small amounts of sifted dry ingredients and pineapple syrup, beating smooth after each addition. Spread batter over pineapple slices in pan, and bake in moderate oven (350°) 50 to 60 minutes. Let stand 5 minutes, then turn out on plate. Serve warm. Serves 6 or 8.

*This ration-days recipe for popular Pineapple Upside-Down Cake was especially created for one of the series of Dole Hawaiian Pineapple advertisements currently appearing in national magazines. Thinking that you might find it of timely interest, it is repeated here.*

While the government still requires a large part of Hawaiian pineapple production for the diets of our Armed Forces here and abroad, the size of last season's crop makes it possible to schedule shipments of Dole Pineapple Products to all parts of the country. If, at times, your grocer happens to be out of stock, try again.

*The convenience of Dole Hawaiian Pineapple Juice these busy days (Just punch and pour!), its distinctive pleasing flavor and beneficial nutritive values, recommend it as a welcome fruit variant in breakfast menus.*

# BERNARDIN

## 2-PIECE MASON CAPS

## OFFER *Extra Protection* AGAINST HOME CANNING *Spoilage*

Guaranteed by Good Housekeeping

Backed by Good Housekeeping Guaranty Seal—an important feature of Bernardin Caps.

**FREE!**

***64-Page Home Canning Guide***

Free to Home Economists, 10c to students and homemakers, it's colorfully illustrated, packed to the brim with up-to-the-minute instructions, ideas, charts and recipes you'll use over and over again. Send for your copy today, *sure!*

EXPERIENCED home canners know that careful and proven methods produce the best results. Correct processing—and air-tight seal . . . the right equipment . . . big and little things that must constantly be watched. Bernardin 2-Piece Mason Caps provide a positive vacuum seal that keeps juices and flavors intact. Inside of lids are triple-coated . . . with tin . . . sanitary gold lacquer . . . and lastly, acid-resisting white enamel. *Triple protection against food spoilage not found in ordinary caps.*

Bernardin Caps are simple to put on . . . economical, too. No old-fashioned rubber rings or paraffin needed. Screw bands can be used indefinitely . . . only inexpensive lids need be replaced. Fit all mason jars. A delight to use!

**BERNARDIN BOTTLE CAP CO., INC.**

**DEPT. Z-3 EVANSVILLE, INDIANA**

*America's Oldest Manufacturer of Metal Closures*



(In writing to advertisers, please mention the journal—it helps.)

# TO SHORTEN THE PERIOD OF *Convalescence*

More than so-termed tonics and restoratives, Ovaltine can materially shorten the period required for the return of strength and vigor following recovery from infectious or prolonged illnesses. During the acute stages of febrile diseases, when the patient's nutritional intake is low and requirements higher than normal, many metabolic deficits are developed. These can be made good only by a high intake of essential nutrients during the recovery period, for only after these deficits are wiped out can former strength and well-being return.

Ovaltine offers many advantages as a nutritional supplement to the diet of convalescence. This delicious food drink is rich in minerals, vitamins, and biologically adequate proteins. Its appealing taste invites consumption of three or more glassfuls daily. Its low curd tension, one-third that of milk, encourages rapid gastric emptying, an important factor in maintaining good appetite.

**THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILL.**

## *Ovaltine*

**Three daily servings (1½ oz.) of New Improved Ovaltine provide:**

| | Dry Ovaltine | Ovaltine with milk* | | Dry Ovaltine | Ovaltine with milk* |
|---|---|---|---|---|---|
| PROTEIN | 6.0 Gm. | 31.2 Gm. | VITAMIN A | 1500 I.U. | 2953 I.U. |
| CARBOHYDRATE | 30.0 Gm. | 62.43 Gm. | VITAMIN D | 405 I.U. | 480 I.U. |
| FAT | 2.8 Gm. | 29.34 Gm. | THIAMINE | .9 mg. | 1.296 mg. |
| CALCIUM | .25 Gm. | 1.104 Gm. | RIBOFLAVIN | .25 mg. | 1.278 mg. |
| PHOSPHORUS | .25 Gm. | .903 Gm. | NIACIN | 5.0 mg. | 6.9 mg. |
| IRON | 10.5 mg. | 11.94 mg. | COPPER | .5 mg. | .5 mg. |

*Each serving made with 8 oz. milk; based on average reported values for milk.

# ALL WRAPPED UP IN THREE NEAT PACKAGES!

## TEACHING HELP ON VITAL WARTIME PROBLEMS

**BETTER CARE MEANS LONGER WEAR!...** Timely 52-page booklet crammed with helpful suggestions to make electric appliances do more and last longer. Special Fix-It Section shows how to diagnose appliance problems and how to make simple repairs. Now in its fourth million! A desk copy free—additional copies available at 1 cent each.

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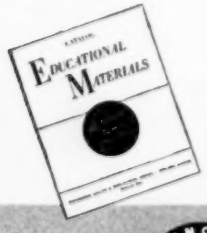


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## *Shall we say "Shame" on* ABSENTEES

## *. . . or feed our workers better?*

**Fatigue from poor nutrition is slowing production, and the inadequate breakfast is one major fault!**

• There are many reasons for mounting absenteeism in war plants. But labor surveys show that a contributing factor to both unexplained absences and inefficiency due to low energy is inadequate morning nourishment. Some workers eat no breakfast. Some exist on coffee and doughnuts. Naturally, physical energy flags without proper fuel.

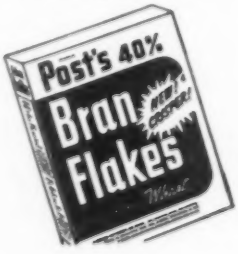
Although the marketing problem of workers is stressed by the scarcity of many foods, *cereals*—a favorite breakfast food—fortunately are plentiful. It remains then to *tell* and *tell* people of the importance of adequate nourishment after the long night's fast. As you know, nutrition experts say breakfast should provide about ¼ to ⅓ of the day's total nourishment!

To this problem—which existed before and will still be with us after the war—a ready cereal like Post's 40% Bran Flakes suggests a practical answer. This delicious food is a good source of thiamin, iron, protein, niacin, and calories. It can be served in a wink. It is thoroughly enjoyable. The simple addition of a big bowlful of Post's 40% Bran Flakes, served with milk, to the beverage and fruit juice rounds out breakfast into a *real* meal. Even light eaters take to such a breakfast.

One ounce of Post's 40% Bran Flakes, served with 3 ounces of milk, supplies the following approximate percentages* of an adult's minimum daily needs:

| | |
|---|---|
| **Protein** | **(6 gm.)—9 to 10%** |
| **Thiamin** | **(.201 mg.)—20%** |
| **Riboflavin** | **(.268 mg.)—13%** |
| **Niacin** | **(2.98 mg.)—20%** |
| **Iron** | **(1.58 mg.)—16%** |
| **Calcium** | **(121 mg.)—16%** |
| **Phosphorus** | **(272 mg.)—36%** |
| **Calories** | **161** |

** Percentages (except Protein and Niacin) based upon the minimum daily adult requirements as established by the Federal Food and Drug Administration. Protein based on 60 grams and 70 grams, Niacin on 15 milligrams.*

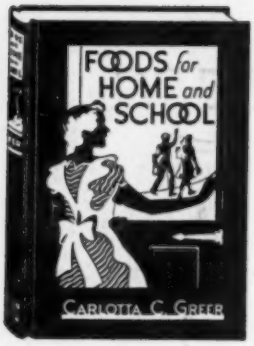



**A delicious daily source of Group Six**

SIX

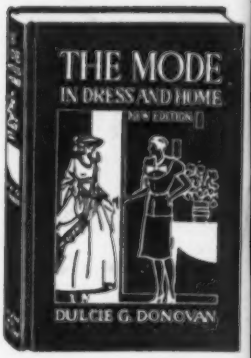
# Post's 40% Bran Flakes

**also Post Toasties, Grape-Nuts, Grape-Nuts Flakes, and Grape-Nuts Wheat-Meal . . . all products of General Foods**




# YOUR HOME AND YOU
# and
# FOODS FOR HOME AND SCHOOL

**By Carlotta C. Greer**




Food will build a new America! This is the theme of both of Miss Greer's new books. Both emphasize the importance of food to man's health and longevity.

But *Your Home and You* covers the whole field of home economics and is a book for a composite course. *Foods for Home and School* is a book for a separate course in foods. In many schools both a composite home economics course and separate courses in foods and other subjects included in home economics are offered. *Your Home and You* and *Foods for Home and School* both have a place in the best-equipped school.

*Your Home and You* is a design for modern living, written by one of the best-known teachers in America, a past president of the Home Economics Department of the National Education Association, an author whose books have stood the test of classroom use.

*Your Home and You* prepares pupils for modern life, emphasizing co-operation in home and family, and teaching the basic facts regarding foods, health, budgeting, the art of dressing sensibly and well, proper care of home and clothing, intelligent buying. A story introduces each new topic with the human-interest approach.

## FOODS FOR HOME AND SCHOOL

**Copyright 1944**

This new book meets wartime demands in our home economy. Recipes have been made in the light of the laboratories' latest evaluations of the vitamins, of fats, including vitaminized margarines and other butter or lard alternates. The quantities of ingredients have been reapportioned to help in the national need for conservation.

## WORKBOOK IN HOME MAKING

Miss Greer's workbook is the pupil's time-saver. By means of it the pupil is enthusiastically led to write her own textbook by recording the solutions of her problems, selecting her own pictures, and performing her own experiments.

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**By Dulcie G. Donovan**

Personal charm is the keynote of Mrs. Donovan's book. To help girls to be attractive, to be popular, to learn how to sew, to take care of a home and of children, are important objectives of the book. How to find a job, how to live happily with others at home and in school, how to become a worthy member of society, are key studies.

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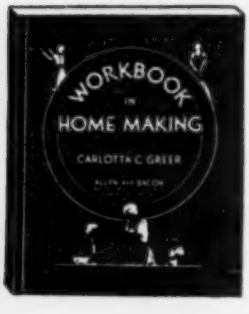
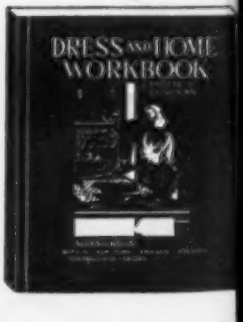
The workbook to accompany the *Mode in Dress and Home* is designed to make the study of clothing and homemaking easier and more interesting. When completed it becomes a permanent record of the year's accomplishments.

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